

4a
EXHIBIT NO. 4A
Adams 3/27/14
L. BELVIN

Obesity	2011
Unit	Patients
ALLRED (JA)	266
B MOORE (BM)	32
BARTLETT (BL)	64
BATEN (NJ)	19
BETO 1 (OB)	237
BOYD (BY)	132
BRADSHAW (BH)	92
BRIDGEPORT (BR)	28
BRIDGEPORT PPT	46
BRISCOE (DB)	55
BURNET COUNTY	16
BYRD (DU)	90
C MOORE (CM)	72
CENTRAL (OC)	44
CLEMENS (CN)	42
CLEMENTS (BC)	248
CLEVELAND (CV)	30
COFFIELD (CO)	360
COLE (CL)	74
CONNALLY (CY)	211
COTULLA (N4)	25
CRAIN (GV)	513
DALHART (DH)	76
DANIEL (DL)	91
DARRINGTON (DA)	119
DAWSON (JD)	378
DIBOLL (DO)	48
DOMINGUEZ (BX)	105
DUNCAN (N6)	51
EAST TEXAS ISF	102
EASTHAM (EA)	233
ELLIS (OE)	189
ESTELLE (E2)	362
ESTES (VS)	87
FERGUSON (FE)	110
FORMBY (FB)	58
FT STOCKTON (N5)	34
GARZA (NH)	258
GIST (BJ)	164
GLOSSBRENNER (SO)	17
GOODMAN (GG)	56
GOREE (GR)	77
GURNEY (ND)	115
HALBERT (BB)	54
HAMILTON (JH)	99
HAVINS (TH)	35
HENLEY (LT)	163
HIGHTOWER (HI)	119
HILLTOP (HT)	123
HOBBY (HB)	278
HODGE (HD)	61
HOLLIDAY (NF)	234
HOSP.GALVESTON	24
HUGHES (AH)	204
HUNTSVILLE (HV)	167
HUTCHINS (HJ)	170
JESTER I (J1)	7
JESTER III (J3)	118
JESTER IV (J4)	30
JOHNSTON (JT)	12
JORDAN (JN)	73
KEGAN (HM)	79
KYLE (KY)	30
LEBLANC (BA)	90
LEWIS (GL)	116
LINDSEY (LN)	65
LOCKHART (LC)	140
LOPEZ (RL)	37
LUTHER (P2)	91
LYCHNER (AJ)	301

Obesity	2012
Unit	Patients
ALLRED (JA)	186
B MOORE (BM)	33
BARTLETT (BL)	36
BATEN (NJ)	33
BETO 1 (OB)	206
BOYD (BY)	114
BRADSHAW (BH)	63
BRIDGEPORT (BR)	25
BRIDGEPORT PPT	56
BRISCOE (DB)	51
BYRD (DU)	71
C MOORE (CM)	65
CLEMENS (CN)	39
CLEMENTS (BC)	246
CLEVELAND (CV)	28
COFFIELD (CO)	331
COLE (CL)	38
CONNALLY (CY)	202
COTULLA (N4)	14
CRAIN (GV)	491
DALHART (DH)	68
DANIEL (DL)	74
DARRINGTON (DA)	129
DAWSON (JD)	390
DIBOLL (DO)	27
DOMINGUEZ (BX)	71
DUNCAN (N6)	36
EAST TEXAS ISF	87
EASTHAM (EA)	207
ELLIS (OE)	194
ESTELLE (E2)	304
ESTES (VS)	82
FERGUSON (FE)	101
FORMBY (FB)	44
FT STOCKTON (N5)	38
GARZA (NH)	188
GIST (BJ)	174
GLOSSBRENNER (SO)	23
GOODMAN (GG)	46
GOREE (GR)	89
GURNEY (ND)	72
HALBERT (BB)	40
HAMILTON (JH)	49
HAVINS (TH)	36
HENLEY (LT)	153
HIGHTOWER (HI)	103
HILLTOP (HT)	126
HOBBY (HB)	302
HODGE (HD)	54
HOLLIDAY (NF)	160
HOSP.GALVESTON	20
HUGHES (AH)	196
HUNTSVILLE (HV)	162
HUTCHINS (HJ)	112
JESTER I (J1)	5
JESTER III (J3)	118
JESTER IV (J4)	34
JOHNSTON (JT)	10
JORDAN (JN)	73
KEGAN (HM)	97
KYLE (KY)	28
LEBLANC (BA)	67
LEWIS (GL)	97
LINDSEY (LN)	67
LOCKHART (LC)	162
LOPEZ (RL)	37
LUTHER (P2)	87
LYCHNER (AJ)	274
LYNAUGH (LH)	140
MARLIN (N1)	48

Obesity	2013
Unit	Patients
ALLRED (JA)	225
B MOORE (BM)	25
BARTLETT (BL)	88
BATEN (NJ)	28
BETO 1 (OB)	222
BOYD (BY)	71
BRADSHAW (BH)	66
BRIDGEPORT (BR)	24
BRIDGEPORT PPT	43
BRISCOE (DB)	44
BYRD (DU)	91
C MOORE (CM)	55
CLEMENS (CN)	45
CLEMENTS (BC)	235
CLEVELAND (CV)	27
COFFIELD (CO)	286
COLE (CL)	34
CONNALLY (CY)	94
COTULLA (N4)	21
CRAIN (GV)	536
DALHART (DH)	71
DANIEL (DL)	77
DARRINGTON (DA)	117
DAWSON (JD)	5
DIBOLL (DO)	34
DOMINGUEZ (BX)	146
DUNCAN (N6)	24
EAST TEXAS ISF	82
EASTHAM (EA)	182
ELLIS (OE)	153
ESTELLE (E2)	230
ESTES (VS)	177
FERGUSON (FE)	94
FORMBY (FB)	26
FT STOCKTON (N5)	23
GARZA (NH)	291
GIST (BJ)	323
GLOSSBRENNER (SO)	15
GOODMAN (GG)	54
GOREE (GR)	102
GURNEY (ND)	54
HALBERT (BB)	40
HAMILTON (JH)	73
HAVINS (TH)	28
HENLEY (LT)	199
HIGHTOWER (HI)	94
HILLTOP (HT)	115
HOBBY (HB)	348
HODGE (HD)	53
HOLLIDAY (NF)	236
HOSP.GALVESTON	26
HUGHES (AH)	188
HUNTSVILLE (HV)	155
HUTCHINS (HJ)	79
JESTER I (J1)	8
JESTER III (J3)	97
JESTER IV (J4)	13
JOHNSTON (JT)	26
JORDAN (JN)	54
KEGAN (HM)	25
KYLE (KY)	30
LEBLANC (BA)	80
LEWIS (GL)	93
LINDSEY (LN)	44
LOCKHART (LC)	167
LOPEZ (RL)	52
LUTHER (P2)	52
LYCHNER (AJ)	169
LYNAUGH (LH)	129
MARLIN (N1)	238

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LYNAUGH (LH)	144
MARLIN (N1)	46
MCCONNELL (ML)	206
MICHAEL (MI)	243
MIDDLETON (NE)	118
MINERAL WELLS PPT	120
MONTFORD (JM)	60
MONTFORD RMF (HP)	9
MT. VIEW (MV)	127
MURRAY (LM)	263
NEAL (KN)	138
NEY (HF)	29
NORTH TEXAS ISF	4
PACK (P1)	144
PLANE (LJ)	731
POLUNSKY (TL)	318
POWLEDGE (B2)	114
RAMSEY I (R1)	143
ROACH (RH)	59
ROACH CAMPS (C1)	6
ROBERTSON (RB)	208
RUDD (RD)	34
SAN SABA (N2)	27
SANCHEZ (RZ)	42
SAYLE (SY)	12
SCOTT (RV)	106
SEGOVIA (EN)	65
SKYVIEW (SV)	33
SMITH (SM)	121
SOUTH TEXAS ISF	36
STEVENSON (SB)	120
STILES (ST)	201
STRINGFELLOW (R2)	138
TELFORD (TO)	254
TERRELL (R3)	154
TORRES (TE)	58
TRAVIS (TI)	92
TULIA (N3)	32
VANCE (J2)	27
WALLACE (WL)	111
WARE (DW)	62
WEST TEXAS ISF	13
WHEELER (WR)	21
WILDERNESS 3 (W3)	2
WILLACY (WI)	43
WOODMAN (WM)	122
WYNNE (WY)	414
YOUNG (GC)	74
TOTAL	13988

MCCONNELL (ML)	200
MICHAEL (MI)	235
MIDDLETON (NE)	84
MINERAL WELLS PPT	91
MONTFORD (JM)	56
MONTFORD RMF (HP)	8
MT. VIEW (MV)	125
MURRAY (LM)	266
NEAL (KN)	130
NEY (HF)	24
NORTH TEXAS ISF	3
PACK (P1)	128
PLANE (LJ)	798
POLUNSKY (TL)	279
POWLEDGE (B2)	104
RAMSEY I (R1)	126
ROACH (RH)	52
ROACH CAMPS (C1)	5
ROBERTSON (RB)	173
RUDD (RD)	51
SAN SABA (N2)	28
SANCHEZ (RZ)	31
SAYLE (SY)	5
SCOTT (RV)	90
SEGOVIA (EN)	53
SKYVIEW (SV)	34
SMITH (SM)	101
SOUTH TEXAS ISF	31
STEVENSON (SB)	102
STILES (ST)	208
STRINGFELLOW (R2)	127
TELFORD (TO)	208
TERRELL (R3)	148
TORRES (TE)	50
TRAVIS (TI)	70
TULIA (N3)	16
VANCE (J2)	24
WALLACE (WL)	105
WARE (DW)	51
WEST TEXAS ISF	9
WHEELER (WR)	25
WILDERNESS 3 (W3)	2
WILLACY (WI)	38
WOODMAN (WM)	88
WYNNE (WY)	369
YOUNG (GC)	93
TOTAL	12677

MCCONNELL (ML)	193
MICHAEL (MI)	173
MIDDLETON (NE)	71
MINERAL WELLS PPT	1
MONTFORD (JM)	41
MONTFORD RMF (HP)	7
MT. VIEW (MV)	131
MURRAY (LM)	300
NEAL (KN)	105
NEY (HF)	29
NORTH TEXAS ISF	2
PACK (P1)	88
PLANE (LJ)	815
POLUNSKY (TL)	250
POWLEDGE (B2)	78
RAMSEY I (R1)	60
ROACH (RH)	35
ROACH CAMPS (C1)	2
ROBERTSON (RB)	188
RUDD (RD)	19
SAN SABA (N2)	128
SANCHEZ (RZ)	29
SAYLE (SY)	12
SCOTT (RV)	95
SEGOVIA (EN)	73
SKYVIEW (SV)	30
SMITH (SM)	82
SOUTH TEXAS ISF	25
STEVENSON (SB)	83
STILES (ST)	181
STRINGFELLOW (R2)	67
TELFORD (TO)	209
TERRELL (R3)	25
TORRES (TE)	47
TRAVIS (TI)	96
TULIA (N3)	29
VANCE (J2)	29
WALLACE (WL)	80
WARE (DW)	25
WEST TEXAS ISF	12
WHEELER (WR)	14
WILLACY (WI)	49
WOODMAN (WM)	60
WYNNE (WY)	296
YOUNG (GC)	89
	11904

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Plaintiffs' MSJ Appx. 7387

Hypertension 2011	
Unit	Patients
ALLRED (JA)	1178
B MOORE (BM)	148
BARTLETT (BL)	177
BATEN (NJ)	104
BETO 1 (OB)	930
BOYD (BY)	466
BRADSHAW (BH)	340
BRIDGEPORT (BR)	121
BRIDGEPORT PPT	34
BRISCOE (DB)	178
BYRD (DU)	342
C MOORE (CM)	186
CLEMENS (CN)	116
CLEMENTS (BC)	1499
CLEVELAND (CV)	136
COFFIELD (CO)	1365
COLE (CL)	138
CONNALLY (CY)	795
COTULLA (N4)	116
CRAIN (GV)	567
DALHART (DH)	333
DANIEL (DL)	439
DARRINGTON (DA)	590
DAWSON (JD)	464
DIBOLL (DO)	150
DOMINGUEZ (BX)	337
DUNCAN (N6)	344
EAST TEXAS ISF	352
EASTHAM (EA)	1013
ELLIS (OE)	1064
ESTELLE (E2)	1282
ESTES (VS)	303
FERGUSON (FE)	482
FORMBY (FB)	186
FT STOCKTON (N5)	79
GARZA (NH)	834
GIST (BJ)	425
GLOSSBRENNER (SO)	70
GOODMAN (GG)	142
GOREE (GR)	355
GURNEY (ND)	265
HALBERT (BB)	47
HAMILTON (JH)	264
HAVINS (TH)	104
HENLEY (LT)	108
HIGHTOWER (HI)	529
HILLTOP (HT)	141
HOBBY (HB)	309
HODGE (HD)	282
HOLLIDAY (NF)	549
HOSP.GALVESTON	107
HUGHES (AH)	951
HUNTSVILLE (HV)	735
HUTCHINS (HJ)	387
JESTER I (J1)	72
JESTER III (J3)	568
JESTER IV (J4)	183
JOHNSTON (JT)	55
JORDAN (JN)	316
KEGAN (HM)	54
KYLE (KY)	129
LEBLANC (BA)	257
LEWIS (GL)	508
LINDSEY (LN)	140
LOCKHART (LC)	180
LOPEZ (RL)	194
LUTHER (P2)	333
LYCHNER (AJ)	450
LYNAUGH (LH)	460
MARLIN (N1)	132
MCCONNELL (ML)	957
MICHAEL (MI)	1322

Hypertension 2012	
Unit	Patients
ALLRED (JA)	1172
B MOORE (BM)	129
BARTLETT (BL)	136
BATEN (NJ)	86
BETO 1 (OB)	805
BOYD (BY)	428
BRADSHAW (BH)	331
BRIDGEPORT (BR)	129
BRIDGEPORT PPT	28
BRISCOE (DB)	129
BYRD (DU)	270
C MOORE (CM)	135
CLEMENS (CN)	73
CLEMENTS (BC)	1304
CLEVELAND (CV)	114
COFFIELD (CO)	1249
COLE (CL)	99
CONNALLY (CY)	764
COTULLA (N4)	95
CRAIN (GV)	502
DALHART (DH)	313
DANIEL (DL)	390
DARRINGTON (DA)	500
DAWSON (JD)	375
DIBOLL (DO)	137
DOMINGUEZ (BX)	334
DUNCAN (N6)	316
EAST TEXAS ISF	311
EASTHAM (EA)	926
ELLIS (OE)	977
ESTELLE (E2)	1177
ESTES (VS)	258
FERGUSON (FE)	379
FORMBY (FB)	116
FT STOCKTON (N5)	82
GARZA (NH)	726
GIST (BJ)	309
GLOSSBRENNER (SO)	32
GOODMAN (GG)	112
GOREE (GR)	307
GURNEY (ND)	206
HALBERT (BB)	77
HAMILTON (JH)	179
HAVINS (TH)	79
HENLEY (LT)	83
HIGHTOWER (HI)	430
HILLTOP (HT)	126
HOBBY (HB)	279
HODGE (HD)	269
HOLLIDAY (NF)	383
HOSP.GALVESTON	96
HUGHES (AH)	876
HUNTSVILLE (HV)	657
HUTCHINS (HJ)	350
JESTER I (J1)	88
JESTER III (J3)	516
JESTER IV (J4)	173
JOHNSTON (JT)	47
JORDAN (JN)	269
KEGAN (HM)	46
KYLE (KY)	120
LEBLANC (BA)	219
LEWIS (GL)	411
LINDSEY (LN)	108
LOCKHART (LC)	185
LOPEZ (RL)	173
LUTHER (P2)	271
LYCHNER (AJ)	351
LYNAUGH (LH)	456
MARLIN (N1)	97
MCCONNELL (ML)	917
MICHAEL (MI)	1243

Hypertension 2013	
Unit	Patients
ALLRED (JA)	1246
B MOORE (BM)	136
BARTLETT (BL)	189
BATEN (NJ)	97
BETO 1 (OB)	896
BOYD (BY)	432
BRADSHAW (BH)	380
BRIDGEPORT (BR)	134
BRIDGEPORT PPT	16
BRISCOE (DB)	137
BYRD (DU)	378
C MOORE (CM)	192
CLEMENS (CN)	111
CLEMENTS (BC)	1422
CLEVELAND (CV)	122
COFFIELD (CO)	1426
COLE (CL)	173
CONNALLY (CY)	586
COTULLA (N4)	78
CRAIN (GV)	561
DALHART (DH)	364
DANIEL (DL)	401
DARRINGTON (DA)	567
DAWSON (JD)	6
DIBOLL (DO)	146
DOMINGUEZ (BX)	386
DUNCAN (N6)	391
EAST TEXAS ISF	308
EASTHAM (EA)	1014
ELLIS (OE)	968
ESTELLE (E2)	1384
ESTES (VS)	317
FERGUSON (FE)	400
FORMBY (FB)	161
FT STOCKTON (N5)	85
GARZA (NH)	698
GIST (BJ)	479
GLOSSBRENNER (SO)	66
GOODMAN (GG)	127
GOREE (GR)	348
GURNEY (ND)	184
HALBERT (BB)	71
HAMILTON (JH)	222
HAVINS (TH)	99
HENLEY (LT)	100
HIGHTOWER (HI)	494
HILLTOP (HT)	112
HOBBY (HB)	300
HODGE (HD)	278
HOLLIDAY (NF)	503
HOSP.GALVESTON	141
HUGHES (AH)	957
HUNTSVILLE (HV)	785
HUTCHINS (HJ)	398
JESTER I (J1)	88
JESTER III (J3)	573
JESTER IV (J4)	160
JOHNSTON (JT)	75
JORDAN (JN)	259
KEGAN (HM)	31
KYLE (KY)	133
LEBLANC (BA)	254
LEWIS (GL)	391
LINDSEY (LN)	117
LOCKHART (LC)	163
LOPEZ (RL)	148
LUTHER (P2)	292
LYCHNER (AJ)	497
LYNAUGH (LH)	439
MARLIN (N1)	118
MCCONNELL (ML)	1035
MICHAEL (MI)	1279

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Plaintiffs' MSJ Appx. 7388

MIDDLETON (NE)	270
MINERAL WELLS PPT	264
MONTFORD (JM)	357
MONTFORD RMF (HP)	62
MT. VIEW (MV)	203
MURRAY (LM)	424
NEAL (KN)	603
NEY (HF)	100
NORTH TEXAS ISF	12
PACK (P1)	746
PLANE (LJ)	435
POLUNSKY (TL)	1141
POWLEDGE (B2)	557
RAMSEY I (R1)	692
ROACH (RH)	245
ROACH CAMPS (C1)	17
ROBERTSON (RB)	867
RUDD (RD)	73
SAN SABA (N2)	33
SANCHEZ (RZ)	165
SAYLE (SY)	59
SCOTT (RV)	505
SEGOVIA (EN)	264
SKYVIEW (SV)	183
SMITH (SM)	410
SOUTH TEXAS ISF	135
STEVENSON (SB)	510
STILES (ST)	1088
STRINGFELLOW (R2)	497
TELFORD (TO)	818
TERRELL (R3)	780
TORRES (TE)	160
TRAVIS (TI)	261
TULIA (N3)	151
VANCE (J2)	102
WALLACE (WL)	254
WARE (DW)	209
WEST TEXAS ISF	73
WHEELER (WR)	110
WILDERNESS 3 (W3)	4
WILLACY (WI)	153
WOODMAN (WM)	144
WYNNE (WY)	1108
YOUNG (GC)	179

44691

MIDDLETON (NE)	261
MINERAL WELLS PPT	218
MONTFORD (JM)	313
MONTFORD RMF (HP)	59
MT. VIEW (MV)	198
MURRAY (LM)	364
NEAL (KN)	562
NEY (HF)	68
NORTH TEXAS ISF	9
PACK (P1)	654
PLANE (LJ)	323
POLUNSKY (TL)	1124
POWLEDGE (B2)	521
RAMSEY I (R1)	617
ROACH (RH)	203
ROACH CAMPS (C1)	14
ROBERTSON (RB)	784
RUDD (RD)	70
SAN SABA (N2)	25
SANCHEZ (RZ)	151
SAYLE (SY)	53
SCOTT (RV)	434
SEGOVIA (EN)	223
SKYVIEW (SV)	155
SMITH (SM)	382
SOUTH TEXAS ISF	106
STEVENSON (SB)	463
STILES (ST)	1059
STRINGFELLOW (R2)	444
TELFORD (TO)	694
TERRELL (R3)	746
TORRES (TE)	89
TRAVIS (TI)	182
TULIA (N3)	102
VANCE (J2)	89
WALLACE (WL)	211
WARE (DW)	172
WEST TEXAS ISF	54
WHEELER (WR)	86
WILDERNESS 3 (W3)	2
WILLACY (WI)	125
WOODMAN (WM)	113
WYNNE (WY)	1028
YOUNG (GC)	208

39593

MIDDLETON (NE)	374
MINERAL WELLS PPT	7
MONTFORD (JM)	270
MONTFORD RMF (HP)	66
MT. VIEW (MV)	202
MURRAY (LM)	357
NEAL (KN)	531
NEY (HF)	84
NORTH TEXAS ISF	5
PACK (P1)	678
PLANE (LJ)	348
POLUNSKY (TL)	1226
POWLEDGE (B2)	542
RAMSEY I (R1)	660
ROACH (RH)	172
ROACH CAMPS (C1)	27
ROBERTSON (RB)	825
RUDD (RD)	83
SAN SABA (N2)	103
SANCHEZ (RZ)	167
SAYLE (SY)	60
SCOTT (RV)	461
SEGOVIA (EN)	276
SKYVIEW (SV)	176
SMITH (SM)	264
SOUTH TEXAS ISF	110
STEVENSON (SB)	450
STILES (ST)	1226
STRINGFELLOW (R2)	471
TELFORD (TO)	827
TERRELL (R3)	838
TORRES (TE)	92
TRAVIS (TI)	253
TULIA (N3)	132
VANCE (J2)	108
WALLACE (WL)	164
WARE (DW)	99
WEST TEXAS ISF	89
WHEELER (WR)	80
WILDERNESS 3 (W3)	5
WILLACY (WI)	107
WOODMAN (WM)	186
WYNNE (WY)	1116
YOUNG (GC)	193

42534

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Plaintiffs' MSJ Appx. 7389

Diabetes	2011
Unit	Patients
ALLRED (JA)	181
B MOORE (BM)	21
BARTLETT (BL)	28
BATEN (NJ)	9
BETO 1 (OB)	165
BOYD (BY)	81
BRADSHAW (BH)	62
BRIDGEPORT (BR)	37
BRIDGEPORT PPT	8
BRISCOE (DB)	13
BURNET COUNTY	2
BYRD (DU)	83
C MOORE (CM)	24
CENTRAL (OC)	12
CLEMENS (CN)	2
CLEMENTS (BC)	189
CLEVELAND (CV)	12
COFFIELD (CO)	181
COLE (CL)	13
CONNALLY (CY)	105
COTULLA (N4)	23
CRAIN (GV)	124
DALHART (DH)	75
DANIEL (DL)	49
DARRINGTON (DA)	113
DAWSON (JD)	102
DIBOLL (DO)	20
DOMINGUEZ (BX)	96
DUNCAN (N6)	60
EAST TEXAS ISF	96
EASTHAM (EA)	131
ELLIS (OE)	121
ESTELLE (E2)	302
ESTES (VS)	61
FERGUSON (FE)	54
FORMBY (FB)	17
FT STOCKTON (N5)	21
GARZA (NH)	208
GIST (BJ)	49
GLOSSBRENNER (SO)	16
GOODMAN (GG)	29
GOREE (GR)	60
GURNEY (ND)	23
HALBERT (BB)	7
HAMILTON (JH)	51
HAVINS (TH)	15
HENLEY (LT)	22
HIGHTOWER (HI)	100
HILLTOP (HT)	19
HOBBY (HB)	52
HODGE (HD)	74
HOLLIDAY (NF)	61
HOSP.GALVESTON	39
HUGHES (AH)	154
HUNTSVILLE (HV)	147
HUTCHINS (HJ)	59
JESTER I (J1)	21
JESTER III (J3)	179
JESTER IV (J4)	53
JOHNSTON (JT)	10
JORDAN (JN)	73
KYLE (KY)	10
LEBLANC (BA)	44
LEWIS (GL)	33
LINDSEY (LN)	18
LOCKHART (LC)	41
LOPEZ (RL)	61
LUTHER (P2)	59
LYCHNER (AJ)	113
LYNAUGH (LH)	90
MARLIN (N1)	19
MCCONNELL (ML)	160
MICHAEL (MI)	196
MIDDLETON (NE)	46
MINERAL WELLS PPT	41
MONTFORD (JM)	123
MONTFORD RMF (HP)	34
MONTFORD UNIT (HOSPITAL)	1
MT. VIEW (MV)	31
MURRAY (LM)	99
NEAL (KN)	130
NEY (HF)	24

Diabetes	2012
Unit	Patients
ALLRED (JA)	197
B MOORE (BM)	26
BARTLETT (BL)	14
BATEN (NJ)	1
BETO 1 (OB)	173
BOYD (BY)	69
BRADSHAW (BH)	34
BRIDGEPORT (BR)	27
BRIDGEPORT PPT	4
BRISCOE (DB)	15
BYRD (DU)	73
C MOORE (CM)	29
CLEMENS (CN)	4
CLEMENTS (BC)	194
CLEVELAND (CV)	19
COFFIELD (CO)	220
COLE (CL)	12
CONNALLY (CY)	112
COTULLA (N4)	20
CRAIN (GV)	151
DALHART (DH)	77
DANIEL (DL)	70
DARRINGTON (DA)	87
DAWSON (JD)	115
DIBOLL (DO)	17
DOMINGUEZ (BX)	145
DUNCAN (N6)	49
EAST TEXAS ISF	81
EASTHAM (EA)	152
ELLIS (OE)	148
ESTELLE (E2)	314
ESTES (VS)	35
FERGUSON (FE)	45
FORMBY (FB)	23
FT STOCKTON (N5)	18
GARZA (NH)	238
GIST (BJ)	59
GLOSSBRENNER (SO)	7
GOODMAN (GG)	12
GOREE (GR)	74
GURNEY (ND)	44
HALBERT (BB)	11
HAMILTON (JH)	40
HAVINS (TH)	6
HENLEY (LT)	10
HIGHTOWER (HI)	82
HILLTOP (HT)	26
HOBBY (HB)	37
HODGE (HD)	78
HOLLIDAY (NF)	95
HOSP.GALVESTON	38
HUGHES (AH)	166
HUNTSVILLE (HV)	153
HUTCHINS (HJ)	89
JESTER I (J1)	16
JESTER III (J3)	171
JESTER IV (J4)	50
JOHNSTON (JT)	28
JORDAN (JN)	63
KEGAN (HM)	4
KYLE (KY)	26
LEBLANC (BA)	51
LEWIS (GL)	32
LINDSEY (LN)	17
LOCKHART (LC)	30
LOPEZ (RL)	35
LUTHER (P2)	67
LYCHNER (AJ)	106
LYNAUGH (LH)	106
MARLIN (N1)	10
MCCONNELL (ML)	181
MICHAEL (MI)	206
MIDDLETON (NE)	58
MINERAL WELLS PPT	33
MONTFORD (JM)	86
MONTFORD RMF (HP)	44
MONTFORD UNIT (HOSPITAL)	1
MT. VIEW (MV)	32
MURRAY (LM)	103
NEAL (KN)	129
NEY (HF)	12
NORTH TEXAS ISF	1

Diabetes	2013
Unit	Patients
ALLRED (JA)	177
B MOORE (BM)	26
BARTLETT (BL)	32
BATEN (NJ)	4
BETO 1 (OB)	146
BOYD (BY)	106
BRADSHAW (BH)	58
BRIDGEPORT (BR)	18
BRIDGEPORT PPT	4
BRISCOE (DB)	21
BYRD (DU)	83
C MOORE (CM)	33
CLEMENS (CN)	8
CLEMENTS (BC)	207
CLEVELAND (CV)	14
COFFIELD (CO)	215
COLE (CL)	32
CONNALLY (CY)	76
COTULLA (N4)	10
CRAIN (GV)	115
DALHART (DH)	69
DANIEL (DL)	61
DARRINGTON (DA)	87
DAWSON (JD)	105
DIBOLL (DO)	18
DOMINGUEZ (BX)	173
DUNCAN (N6)	60
EAST TEXAS ISF	82
EASTHAM (EA)	171
ELLIS (OE)	154
ESTELLE (E2)	298
ESTES (VS)	30
FERGUSON (FE)	29
FORMBY (FB)	41
FT STOCKTON (N5)	16
GARZA (NH)	222
GIST (BJ)	93
GLOSSBRENNER (SO)	9
GOODMAN (GG)	7
GOREE (GR)	78
GURNEY (ND)	45
HALBERT (BB)	9
HAMILTON (JH)	23
HAVINS (TH)	8
HENLEY (LT)	23
HIGHTOWER (HI)	93
HILLTOP (HT)	18
HOBBY (HB)	38
HODGE (HD)	71
HOLLIDAY (NF)	85
HOSP.GALVESTON	44
HUGHES (AH)	171
HUNTSVILLE (HV)	151
HUTCHINS (HJ)	67
JESTER I (J1)	18
JESTER III (J3)	157
JESTER IV (J4)	51
JOHNSTON (JT)	19
JORDAN (JN)	66
KYLE (KY)	20
LEBLANC (BA)	52
LEWIS (GL)	40
LINDSEY (LN)	35
LOCKHART (LC)	34
LOPEZ (RL)	15
LUTHER (P2)	49
LYCHNER (AJ)	111
LYNAUGH (LH)	117
MARLIN (N1)	13
MCCONNELL (ML)	180
MICHAEL (MI)	194
MIDDLETON (NE)	82
MINERAL WELLS PPT	26
MONTFORD (JM)	51
MONTFORD RMF (HP)	37
MONTFORD UNIT (HOSPITAL)	1
MT. VIEW (MV)	25
MURRAY (LM)	76
NEAL (KN)	103
NEY (HF)	4
NORTH TEXAS ISF	1
PACK (P1)	228

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NORTH TEXAS ISF	12
PACK (P1)	217
PLANE (LJ)	89
POLUNSKY (TL)	204
POWLEDGE (B2)	154
RAMSEY I (R1)	140
ROACH (RH)	25
ROBERTSON (RB)	152
RUDD (RD)	15
SAN SABA (N2)	2
SANCHEZ (RZ)	35
SAYLE (SY)	12
SCOTT (RV)	99
SEGOVIA (EN)	60
SKYVIEW (SV)	45
SMITH (SM)	49
SOUTH TEXAS ISF	25
STEVENSON (SB)	109
STILES (ST)	171
STRINGFELLOW (R2)	97
TELFORD (TO)	86
TERRELL (R3)	232
TORRES (TE)	21
TRAVIS (TI)	27
TULIA (N3)	14
VANCE (J2)	7
WALLACE (WL)	36
WARE (DW)	20
WEST TEXAS ISF	14
WHEELER (WR)	18
WILLACY (WI)	44
WOODMAN (WM)	29
WYNNE (WY)	180
YOUNG (GC)	65
8092	

PACK (P1)	218
PLANE (LJ)	94
POLUNSKY (TL)	229
POWLEDGE (B2)	135
RAMSEY I (R1)	146
ROACH (RH)	15
ROACH CAMPS (C1)	2
ROBERTSON (RB)	146
RUDD (RD)	11
SAN SABA (N2)	2
SANCHEZ (RZ)	31
SAYLE (SY)	7
SCOTT (RV)	117
SEGOVIA (EN)	68
SKYVIEW (SV)	48
SMITH (SM)	49
SOUTH TEXAS ISF	27
STEVENSON (SB)	123
STILES (ST)	202
STRINGFELLOW (R2)	126
TELFORD (TO)	93
TERRELL (R3)	275
TORRES (TE)	13
TRAVIS (TI)	22
TULIA (N3)	9
VANCE (J2)	14
WALLACE (WL)	33
WARE (DW)	15
WEST TEXAS ISF	20
WHEELER (WR)	15
WILLACY (WI)	28
WOODMAN (WM)	22
WYNNE (WY)	224
YOUNG (GC)	88
8392	

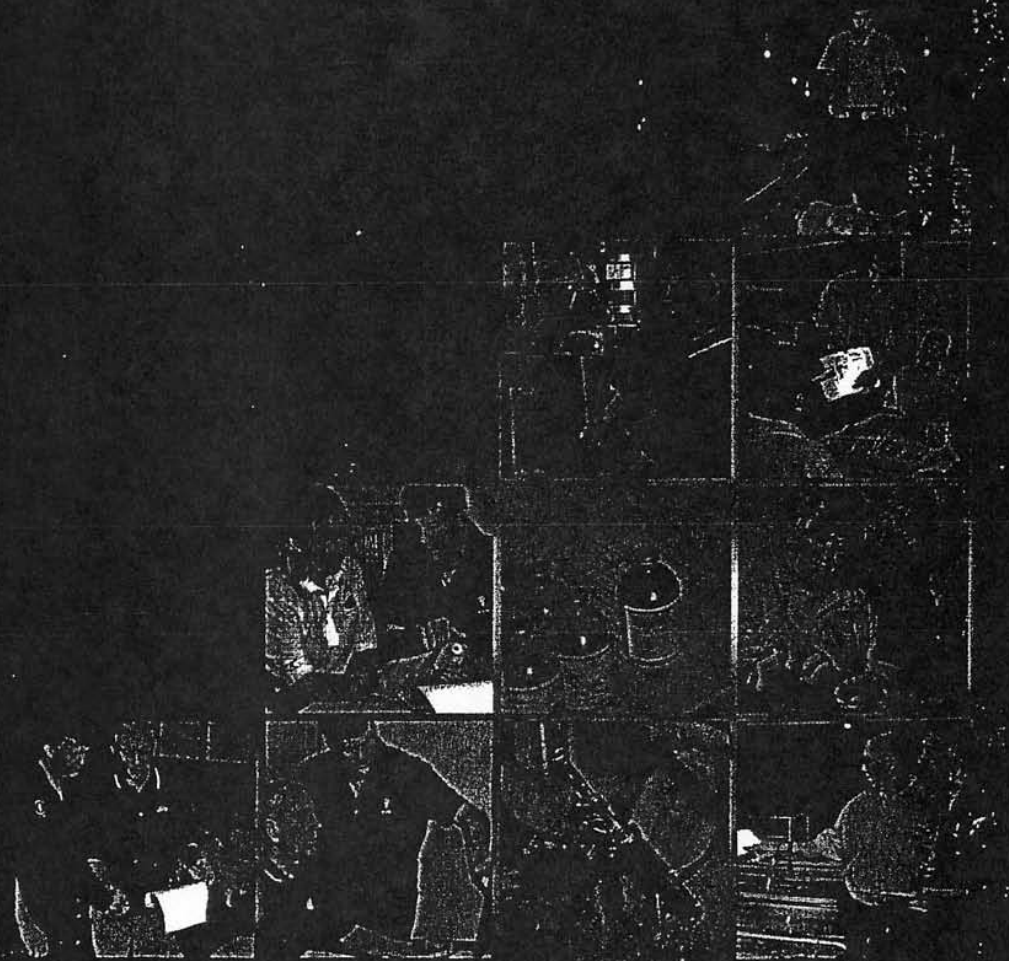
PLANE (LJ)	81
POLUNSKY (TL)	205
POWLEDGE (B2)	134
RAMSEY I (R1)	132
ROACH (RH)	13
ROACH CAMPS (C1)	2
ROBERTSON (RB)	137
RUDD (RD)	16
SAN SABA (N2)	1
SANCHEZ (RZ)	23
SAYLE (SY)	7
SCOTT (RV)	104
SEGOVIA (EN)	61
SKYVIEW (SV)	43
SMITH (SM)	42
SOUTH TEXAS ISF	19
STEVENSON (SB)	108
STILES (ST)	216
STRINGFELLOW (R2)	133
TELFORD (TO)	78
TERRELL (R3)	261
TORRES (TE)	13
TRAVIS (TI)	45
TULIA (N3)	15
VANCE (J2)	15
WALLACE (WL)	20
WARE (DW)	15
WEST TEXAS ISF	33
WHEELER (WR)	17
WILLACY (WI)	19
WOODMAN (WM)	18
WYNNE (WY)	204
YOUNG (GC)	81
8150	

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Plaintiffs' MSJ Appx. 7391



Certification Manual



pork
checkoff

PQA Plus Cert Excerpt
10.02.13 rfp 1 rog 4 pg 1
Plaintiffs' MSJ Appx. 7393

pork.org | 800.456.7675

11. Ventilation

Both air temperature control and air quality can impact the well-being of the pigs on the operation. These two factors can be controlled through adequate ventilation management. The management and quality of the ventilation system in the facility will also impact the pig's well-being. Every type of housing system must provide conditions that are conducive to good health, growth and performance at all stages of the pig's life.

Temperature Control

Provisions for heating and/or cooling should be present and in working order during extremes in the weather. The facility should provide for moderating temperature enough to prevent the pigs from displaying extreme thermoregulatory behaviors. Pigs perform thermoregulatory behaviors in effort to help regulate their body temperature. These behaviors are the best indicator of the pigs' perception of the temperature in their environment as seen in Figure 11.1. It is important to assess these behaviors without disturbing the pigs. If air temperature is too cold, pigs will huddle together, shiver and excessively pile onto each other to keep warm. If the air temperature is too hot, pigs will try to avoid body contact with other pigs and have increased respiration rates. Respiration rates are assessed by counting breaths per minute. Normal ranges for healthy pigs can be found in Table 11.2.

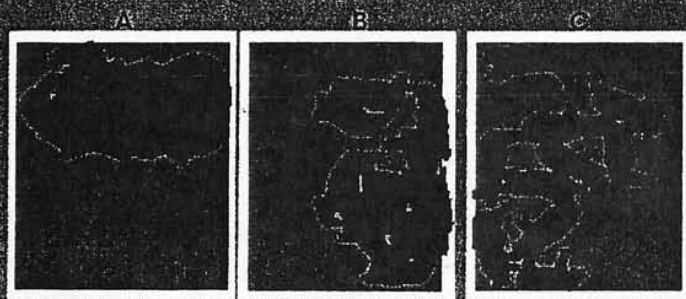
Table 11.2. Normal Respiration Rates for Swine

Production Phase	Respiratory Rate (breaths/minute)
Prenursery	50-60
Nursery	25-40
Growing	30-40
Finishing	25-35
Gestating sows	13-18
Lactating sows	15-22*
Boars	13-18

Table adapted from *Diseases of Swine*, 2006

*Respiration rates will increase beginning 24 hours prior to farrowing and should return to normal by 24 hours post-farrowing.

Figure 11.1. Thermoregulatory Lying Postures of Swine



The images in Figure 11.1 portray the thermoregulatory lying postures of pigs in an environment with three different air temperatures. Take note of the pigs in relation to each other as well as the amount of free space within the pen. Image A depicts a pen of 10 pigs in an environment with cold air temperature. These pigs huddle very close together in a dense pile in one area of the pen. Image B depicts a pen of 10 pigs in an environment with ideal air temperature. These pigs have body contact with each other but do not pile excessively. Image C depicts a pen of 10 pigs in an environment with hot air temperature. These pigs spread out throughout the pen and avoid physical contact with other pigs in the pen. Figure 11.1 is taken from Shao et al. 1997 in volume 40 of the *Transactions of the American Society of Agricultural Engineers*.

The thermal perception of the caretaker may be very different than that of the pig. Table 11.3 gives the critical limits and preferred temperature ranges for pigs in various stages of production. Upper and lower critical temperatures define the Thermal Comfort Zone or the range of temperatures that the pig does not have to use heat conserving or dissipating mechanisms (such as shivering, huddling or panting). Keeping pigs above or below their critical temperature cannot only negatively influence thermal comfort, but also feed intake, growth, feed conversion efficiency and health. Remember that air temperature measurements should be recorded at pig height (approximately 1 foot above the ground). Temperatures should be taken in the center at one-third intervals down the length of the barn. Remember to avoid taking temperatures near inlets and direct heat sources.

Table 11.3. Thermal Limits for Swine

Production Phase	Lower critical limit ¹	Upper critical limit ²	Preferred range
Lactating sow and litter	50°F for sow	90°F for sow	60-75°F for sows; 85-90°F for piglets
Prenursery, 10-30 lbs	60°F	95°F	75-80°F
Nursery, 30-75 lbs	40°F	95°F	65-80°F
Growing, 75-150 lbs	25°F	95°F	60-75°F
Finishing, 150 lbs-market	5°F	95°F	50-75°F
Sows or Boars	5°F	90°F	60-75°F

¹Bedding, supplemental heat, or other environmental modification is recommended when air temperatures approach the lower critical limit.

²Except for brief periods above these air temperatures, some form of cooling should be provided when temperatures approach upper critical limits.



Remember to avoid taking temperatures near inlets and direct heat sources.

Air Quality: Ammonia

Air quality can be controlled with a ventilation system that is in working order and that can operate without interruption. This is true whether the ventilation system uses the natural flow of air or mechanical assistance. There are several contaminants, such as dust and various gasses, that contribute to the quality of the air within the pigs' environment. Some air contaminants, at high concentrations, can irritate the respiratory tract of the pigs and may leave them susceptible to disease infection while others can be lethal when concentrations are high enough. Watery and mattery eyes, bloodshot eyes and breathing difficulty are indicators that pigs may be exposed to poor-quality air.

Ammonia is a common air contaminate that can directly impact the well-being of the pig through irritation of the respiratory tract. Ammonia concentrations in the air can be measured by using gas diffusion tubes for time-weighted average (TWA) measurements taken throughout the facility. These TWA measurements should not exceed 25 ppm. Samples should be taken in the center of the building at one-third intervals down the length of the barn. Remember that all air samples should be taken at pig level (approximately 1 foot above ground) and areas around air inlets and fans should be avoided.

Air Ammonia Concentrations

- TWA measurement \leq 25 ppm = Acceptable
- TWA measurement $>$ 25 ppm = Develop and Implement an Action Plan

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION


STEPHEN McCOLLUM, and SANDRA	§	
McCOLLUM, individually, and STEPHANIE	§	
KINGREY, individually and as independent	§	
administrator of the Estate of LARRY GENE	§	
McCOLLUM,	§	
PLAINTIFFS	§	
	§	
v.	§	CIVIL ACTION NO.
	§	4:14-cv-3253
	§	JURY DEMAND
BRAD LIVINGSTON, JEFF PRINGLE,	§	
RICHARD CLARK, KAREN TATE,	§	
SANDREA SANDERS, ROBERT EASON, the	§	
UNIVERSITY OF TEXAS MEDICAL	§	
BRANCH and the TEXAS DEPARTMENT OF	§	
CRIMINAL JUSTICE.	§	
DEFENDANTS	§	

Plaintiffs' Consolidated Summary Judgment Response Appendix

EXHIBIT 333

**Texas Department
Of
Criminal Justice
Agribusiness, Land and Minerals**

**Number: L/S 6.03.01
Date: March 8, 2007
Page: 1 of 26**

- SUBJECT:** SWINE PROGRAM MANAGEMENT PROCEDURES
- AUTHORITY:** C. F. Hazlewood, Jr. Director II-Agribusiness, Land & Minerals 
- PURPOSE:** To outline and establish uniform operating procedures for the Texas Department of Criminal Justice's Agriculture Division Swine Program.
- MISSION:** The mission of the Texas Department of Criminal Justice's Swine Program is to produce quality and cost efficient market hogs in a comfortable and humane environment to meet the agency's pork consumption needs. This mission will be accomplished in the most cost effective means possible, thereby reducing the tax burdens of the citizens of the State of Texas. Secondary goals are to provide an outlet for recycling kitchen wastes, provide a source of minor cash revenue, and provide inmate work ethic training.
- UPDATES:** Memorandums, letters of instruction and other applicable communications related to information provided in this document will be issued when appropriate. These communications shall replace and/or enhance policies, procedures, and guidelines herein outlined. It shall be the responsibility of all employees assigned a livestock manual to be knowledgeable of its content and communications and to ensure its continued update by way of adding all pertinent communications received. In order to assist you in complying with this requirement, all communications related to this document will be issued in a consistent, numbered format.
- DEFINITIONS:** The following definitions are common terms to the swine industry and TDCJ's swine operations.
- I. Animal Classifications**
1. **Boar:** Any sexually intact male hog used for breeding purposes
 2. **Gilt:** Any sexually intact female hog designated for breeding purposes that has not had her first litter. A gilt will be reclassified to a sow upon her first breeding.
 3. **Sow:** Any mature female hog used for breeding purposes that has birthed one or more litters.
 4. **Pigs, Nursery Pigs, Baby Pigs:** Any young pig born and still nursing on a sow. Upon weaning from sow, these pigs are reclassified to Feeder Pigs.
 5. **Feeder Pigs, Weaned Pigs:** Any pig in nursery facilities, from the time it is weaned until it reaches approximately fifty pounds in weight. These pigs are reclassified to Finishers once they are received at Feeder Slabs

6. **Finishers:** Any hog on Feeder Slabs being fed for slaughter. Female Finishers may be reclassified to Gilts at the time they are designated as replacements for farrowing operations.

II. Swine Facilities

1. **Farrowing Operations:** Those operations designated for the production of baby pigs. Includes breeding, gestating, and farrowing barns.
2. **Nurseries:** Includes both Hot and Cold Nurseries for the rearing of Feeder Pigs from the time they are weaned until they weigh approximately fifty pounds.
3. **Finisher Slabs:** Facilities designated for the feeding out of Finishers until they are shipped to market.

III. Animal Health

1. **Abscess:** The result of the body's reaction to an infection introduced at or in the injection site at the time of administration. Also can be a result of injury caused by rough floors, bruises etc.
2. **Auxiliary space:** The loose skin located between the forelegs and chest wall.
3. **Inguinal region:** The loose skin located between the hind legs and the belly wall.
4. **Injectable:** Any product, medicine or vaccine, given to an animal with a needle and syringe.
5. **Injection Sites:** Locations on the animal where the medicines and vaccines can be administered. * In most situations, injections will be given behind the base of the ear to prevent injection site cutouts and protect meat quality.
6. **Injection Route:** The location within the body where injectable can be deposited:
 - a. ***Intramuscular (IM):** injection placed in the muscle tissue.
 - b. ***Subcutaneous (SC):** injection placed in the tissue between the skin and underlying tissue.
7. **Disposable Needles:** Hypodermic needles that are designed to be disposed of after each use. Disposal shall always be in a Sharps container.
8. **Disposable Syringes:** Plastic syringes designed to be disposed of after each use. Disposal shall always be in a Sharps container.

PROCEDURES:

I. ANIMAL WELFARE: It is the responsibility of all livestock staff to insure that animals are provided the basics needs to perform at the highest level. This includes fresh feed, fresh water, adequate space, humane handling, and a comfortable environment with ventilation. Animals shall never be handle or housed in a manner that does not provide these essentials. Chronic sick or downer animals shall not be allowed to suffer and should be humanely submitted to euthanasia if necessary. Staff veterinarian care is available whenever needed.

II. FEEDING PROGRAM: A precise and quality feeding program is essential to the nutritional well being of the entire swine herd. Unnecessary deviations from the program can jeopardize herd health, growth, and reproductive performance. All rations have been developed and are continually evaluated to meet the genetic dietary requirements of TDCJ's herds while maximizing performance and carcass quality. All feed rations shall be fed in

accordance with manufacture guidelines unless otherwise recommended by Agriculture Staff. (See attachment). All feed should be fresh and presented in a manner to encourage consumption and minimize waste

A. RATIONS: The following rations will be fed in the prescribed manner:

1. **Dry Sow (Gestating Sow) Ration:** Feed to open and gestating sows, gilts, and boars.
 - a. **Boars** will be fed four to eight (4-8) pounds daily in order to maintain body condition. Individual adjustments will be made to ensure boars are not over or under fed.
 - b. **Sows** will be fed four to five (4-5) pounds daily in order to maintain condition. Freshly weaned sows may be fed ad-lib* to condition for breeding. Individual attention should be given to gestating sows to ensure the proper feed level to keep the sow from becoming too fat. See **manufacture feed recommendation attachment to insure accurate feed program.** * Ad lib is full feed, but keep fresh by feeding at least three times per day.
 - c. **Gilts** will be fed Dry Sow ration when moved into breeding barn. See below for conditioning gilts before they reach breeding age.
2. **Wet Sow (Lactating Sow) Ration:** Feed to young replacement gilts and sows and gilts in last three weeks of gestation and for duration of lactating period. Wet Sow may be fed to boars with the prior consent of the Program Specialist III-Swine.
 - a. **Replacement Gilts** will be fed six to eight (6-8) pounds daily in order for steady growth and to maintain body condition until they are of breeding age. Two weeks prior to breeding, gilts should be "flushed" by feeding 7-10 pounds of Wet Sow ration daily. See Dry Sow ration guidelines for feeding gilts once breeding has occurred. Care should be taken to not allow gilts to become fat.
 - b. **Gestating Gilts and Sows:** Feed three to five (3-5) pounds daily beginning three weeks before the expected farrowing date. One week prior to farrowing, feed level should be gradually increased to prepare each sow/gilt for farrowing (See Guide For Feeding in Gestation). Individual attention should be given to each sow/gilt in order to ensure proper condition. Ideally, sows should be fed twice daily.
 - c. **Lactating Sows:** Once the sow/gilt is placed in a farrowing crate, Wet Sow Ration should be fed three times per day to satisfy the sow's entire nutritional requirements until pigs are weaned. This is the most crucial period for proper nutrition in the sow's production period. It is very important that Wet Sow ration be kept fresh and free from mold. Mold is what causes all feeds to clump together in feed bins and is a major factor in sows becoming sick while in the farrowing barn. (See Successful Sow-L Guidelines for Lactating Sows). While nursing, the sow should be made to get up several times throughout each day in order to encourage her to eat. Follow feed manufacturer recommended **Post-Farrowing** feed schedule.

3. **NURSING PIGS: (Unweaned pigs 12lbs or less):** At 5 lbs, nursing pigs shall begin receiving Healthline Q-meal as a creep feed. Began by feeding a handful on the heat mat until they become familiar with eating it. At appr 7.5 lbs, began mixing Healthline Pellet #1 with the Q-meal, by the hand full and feed on the heat mat or in the small plastic creep feeders. If you use the creep feeders, feed only what they will consume in a 4 hour period, but keep fresh and available at all times. At 10 lbs, began to feed the Healthline Pellet #2 only in the creep feeders, mixed with the Pellet #1 and the Q-meal, again in quantities that they will consume in a four-hour period, but keep fresh and available. At 12.5 lbs, the Q-meal and the Pellet #1 can be discontinued, but continue feeding the #2 pellet and began mixing in the Healthline #3 pellets. At 15 lbs the Pellet #2 will be discontinued, but continue feeding the #3 pellets until the pigs weigh 17.5lbs. The actual weaning of pigs may take place before this feeding stage is complete, but follow the feeding stage through each step to completion in the nursery. For complete details, see Healthline attachment.
4. **WEANED PIGS: (Nursery pigs 17.5 to 50lbs)** At 17.5 lbs, pigs shall be fed Healthline 371 free choice or ad-lib until pigs reach 24 lbs. Feed in a manner that will keep feed fresh and free of moisture, odors, or molds. At 24 lbs, pigs shall be placed on Healthline 106 in the same manner as mentioned above until pigs reach 50lbs.
 - a. **Grower Ration:** Feed to finishers weighing 50lbs until they reach one hundred (100) pounds. Should be fed free choice. Due to withdrawal times of feed additives in the ration it is important that no pigs over 100 pounds are exposed to this feed.
 - b. **Finisher Ration:** Feed ad lib to Finishers beginning at one hundred pounds until shipped to market.
 - c. **Supplement Ration:** Feed free choice to Finishers weighing one hundred pounds, combined with corn at a rate of 20 pounds of supplement to 100 pounds of corn. Fed only on Clemens, Retrieve, Darrington, Jester, Pack, and Hilltop. In the event supplement is not available, finisher ration must be ordered.
 - d. **Medicated Rations:** Any of the above feeds will be medicated only with Vet recommendation and the prior approval of the Agriculture Program Specialist II or III. As with all medicated feeds, the feeding levels remain the same, but proper care must be taken to ensure that withdrawal times are met before hogs are shipped to market.

B. EDIBLE WASTE (SLOP) FEEDING: The feeding of recycled edible kitchen wastes provides a two-fold benefit to the Agency: reduced swine feeding costs and elimination of disposal fees for the waste. However, the feeding of edible waste must comply with the United States Department of Agriculture (USDA) cooking and feeding guidelines and must not violate Texas Natural Resource Conservation Commission (TCEQ) regulations regarding waste disposal.

1. **Collection:** The collection and placement of food wastes for cooking into slop is the responsibility of the unit kitchen stewards (Food Service Policy and Procedures Manual). All non-food items should be removed before placing in slop wagon cookers.

2. **Cooking:** All kitchen waste must be cooked at least thirty at 212 degrees Fahrenheit (100 C). Accurate records must be maintained on the amount of slop cooked, time cooked, and temperature levels. The personnel responsible for keeping such records will be determined on a unit basis, primarily depending on location of cooking facilities. USDA regulations require all cooking records to be maintained for one year.
3. **Feeding:** Slop will be fed daily to only Finishers weighing over one hundred (100) pounds. Any slop leftover from the previous day should be cleaned up before the current days slop is provided with slop lanes thoroughly cleaned daily. Once slop is poured out on slop lanes, the slop will be allowed to cool before any hogs are turned out on it and any non-edible items removed. It is permissible and recommended to leave the hogs turned out overnight on the slop for at least sixteen (16) hours of exposure per day. When feasible, finisher ration should be fed in a limited manner to encourage consumption of slop. Where possible, slop will be withdrawn two weeks prior to shipping hogs to the Michael Packing Plant or outside sales. During these last two weeks, finishers shall be fed finisher ration ad-lib or corn ad-lib, depending on the unit. This practice can improve the flavor of the pork.
4. **USDA Permitting:** All facilities will maintain current waste feeding permits. PSIII or II shall be notified prior to expiration of permits.

C. FEED MANAGEMENT FACTORS: Several routine practices will ensure a successful feeding program.

1. **Fresh Feed:** Always ensure that feed is fresh, dry, and not contaminated with any mold or foreign material. If a question arises on quality of feed, draw several samples, noting date, type of feed, and day feed was received from the feed mill.
2. **Feed Troughs:** Thoroughly clean and disinfect troughs/feeders in between each group of hogs. This will eliminate cross contamination from feed and hogs. Keep wash and rain water out of feeders to reduce spoilage. Periodically check feeders to remove any feed that is caking. The day before shipping, make sure feeders contain only a day's worth of feed so feed wastage will be minimized.
3. **Feed Bins:** Feed Bins should be thoroughly emptied and cleaned at least on a quarterly basis. High humidity may require cleaning more often.
4. **Feed Orders:** All feeds should be ordered one (1) week in advance unless otherwise instructed.

III. FARROWING OPERATIONS: The success of our program begins here and should be supervised at the highest level giving attention to all details. The farrowing operation is split into four distinctive management areas: breeding, gestating, farrowing, and gilt management. The following outlines the operating procedures for these four areas.

A. BREEDING PROGRAM: The breeding program at Coffield, Powledge, Eastham, Ellis, and Ferguson Farrowing Operations will vary slightly due to difference in facilities. However, the following methods apply:

1. **Penning:** Sows should be moved onto breeding floor immediately after weaning and penned in as small of groups as possible sorted on sow size. Weaker, yet productive sows may be separated to allow time to regain body condition.
2. **Feeding:** Refer to the Feeding Program Section.
3. **Heat Detection:** Sows and gilts will be checked twice daily for signs of heat. This will be done visually and with a teaser boar. Once identified in heat, the sow/gilt will be designated for breeding. Sows will be bred on first heat after being weaned.
4. **Mating:** All gilts and sows will be hand-mated. Pasture or pen mating will be conducted only with the prior approval of the Program Specialist III-Swine.
All breeding shall be under direct supervision of livestock staff.
 - a. All gilts/sows will be bred at least twice during a 36 hour interval, preferably to the same boar, with 12-24 hours between the two services. Ideally, sows will be bred for the first time twelve hours after the onset of heat and gilts six hours after the onset of heat.
 - b. All mating will be observed to be sure that penetration occurs and to provide assistance to the boar, if necessary.
 - c. Sows/gilts will be matched with a boar that compliments the female's size, breed, and body conformation. Pay close attention to boar's origin as not to in-breed.
 - d. All mating must be recorded.
5. **Returns to Heat:** All sows and gilts will be observed 18-24 days after breeding for signs of returning to heat. A boar will be used for heat detection. Open sows must be closely evaluated for culling; gilts will be culled after being open twice (see Section III.D. for more information on gilts).
6. **Pregnancy Testing:** All sows and gilts will be mechanically pregnancy tested thirty-five days after being mated. Pregnant sows will become part of gestating herd and managed as such. To guard against a false pregnancy reading, sows detected pregnant will be visually inspected seven days later to check for signs of heat. To guard against a false pregnancy reading, sows detected pregnant will be heat checked seven (7) days later.
7. **Boars:** Efficient management of boars is vital to the success of the breeding operation.
 - a. **Replacement Boars:** Boars will be replaced depending on age, size, health, and performance three times annually. All boars will be purchased from accredited Specific Pathogen Free (SPF) herds based on specifications set by the Program Specialist III-Swine. All boars will meet stringent performance qualifications and must be physically evaluated. Only SPF boars will be purchased to eliminate the introduction of unwanted health problems. Any newly purchased boar that shows signs of being a non-breeder, for whatever reason, should be reported to the Program Specialist III for possible replacement.
 - b. **Quarantine:** All purchased boars will be quarantined on the Wynne Unit in compliance with the Texas Animal Health Commission (TAHC) guidelines. The purpose for quarantine of outside purchases is to protect the agency's breeding herd from exposure to diseases. Newly purchased breeding stock

shall be under strict bio-security protocols will in quarantine. Upon clearance from TAHC, boars will be shipped to farrowing operations where they will be isolated for another 7-10 days before being used.

- c. **Feeding:** Boars will be fed according to the Feeding Program guidelines. Boars will do better if fed twice daily.
- d. **Boar Usage:** Boars will neither be under utilized nor over utilized. A mature boar can be used three consecutive days, rested two days, then used three more days. Younger boars should be used two days and rested for two days. Boars should be matched to each sow according to size, breed, and body conformation. Caution must be used in handling all boars. To properly evaluate each boar's performance, it is recommended that the sow is bred to the same boar during each service. This same boar service mandatory for operations producing replacement gilts. When possible, extra boars will be available for use in summer months to try to offset heat-related breeding deficiencies.
- e. **Tusks:** Each boar's tusks need to be removed twice a year, especially prior to shipping.

B. **GESTATING PROGRAM**

- 1. **Penning:** Sows and gilts will be placed into farrowing groups according to expected due date to make a farrowing group. Within each farrowing group, sows and gilts should be penned by size and/or breed type to eliminate competition. Attention must be paid to make sure each sow is maintaining her body condition. Gestating sows and gilts need to be monitored by staff on a daily basis.
- 2. **Feeding:** Refer to the Feeding Program Section.
- 3. **Heat Detection:** Sows will be periodically checked visually and with a teaser boar to identify any sows that have come open in the breeding barn. (See Section III. A. Breeding Program)
- 4. **Sanitation:** Pens shall be scraped on a daily basis and washed only every two or three days. **Do not let water stand in pens. Keep pens as dry as possible.**

C. **FARROWING PROGRAM:** Of all the operations, the care of the farrowing sow and her litter requires the most attention. Sanitation, warmth, cooling, and drying of the facility is essential. Because the baby pigs are most vulnerable to diseases and temperature fluctuations, traffic must be kept to a minimum in the farrowing houses.

- 1. **Sanitation:** All employees and inmates assigned to the farrowing barn will have prior instructions as to the sanitation procedures to be followed (also see section VI.D. Bio-Security Guidelines).
 - a. **Equipment:** Specific equipment will be assigned to the swine farrowing area and designated as the only equipment to be used in this area except in an emergency. Any equipment from another area or hog operation must be thoroughly cleaned and disinfected before being allowed near the breeding herd and baby pigs.
 - b. **Foot Baths:** Foot vats with a disinfectant solution are needed at all entrances to the farrowing house to control the spread of disease. No one

- (including the swine supervisors and assigned inmates) should enter the house without using the footbath.
- c. **Farrowing House Equipment:** All crates should be kept clean and dry as possible at all times. Clean crates daily using the absolute minimum amount of water. ABSOLUTELY NO WATER is to be used on pigs in farrowing crates.
 - d. **Washing Sows:** All sows coming into barns must be thoroughly washed, paying particular attention to the udder and feet. Sows will be sprayed with an approved, diluted disinfectant solution (DC&R) before placing them in the crates.
 - e. **Emptying a Farrowing House:** All sows and litters will be moved out of the farrowing barn and the entire barn must be thoroughly cleaned and scrubbed with pressure cleaners. Following the cleaning and after the crate has dried, the crate and floors will be disinfected with a disinfectant solution(s). This solution should be allowed to dry on the crate and floor.
2. **Farrowing Groups:** While in the gestation barns, sows should be grouped into farrowing groups based on their expected due date. Since TDCJ's farrowing houses have either fourteen or twelve crates each, this means a corresponding number of pregnant sows should be grouped together to fill the house. The difference between due dates within a group should be kept to a minimum. This group should be loaded into the house four days before the earliest farrowing date and should stay together. Do not mix sows or pigs from different groups if possible since this will compromise disease control.
 3. **Feeding Sows:** The sows will be fed the lactating ration according to manufacturer recommendation in the farrowing house three times a day. This allows for better-feed utilization by the sow. Feed should be kept fresh and any remaining feed left from the prior day should be removed. It may be necessary to get sows up periodically to encourage them to eat. In wet/dry feeders, make sure feed is not allowed to sour in the bottom tray. Also make sure the water nipple does not become stopped up from feed particles. Refer to section II, Feeding Program.
 4. **Environment:** The farrowing houses should be managed to keep the pigs dry and warm and the sows cool. This seemingly conflicting goal can be achieved by frequently monitoring the barn and equipment. Make sure that heating pads and/or heaters are operating effectively. Eliminate any cold drafts across pigs. The drip-system timers for sows should be set to activate at 74-78 degrees during the warmer months and run for several minutes before shutting off. Keep the drippers in good shape and adjusted where the water is not getting pigs wet. The barns should be kept around 85 degrees for baby pig comfort. Ventilation and heaters can achieve this. Regardless of the season, ventilation is necessary for air quality. This can be accomplished in both summer and winter months. Always be aware of the comfort level of sows and pigs. Maintain ventilation systems in the manner as originally intended. Do not compromise by simply blowing air on sows, but by pulling air across sows. It is necessary to have a back-up plan in place in case of power failure. Some facilities have back-up generators to power

barns if commercial power fails. These back-up generators should be tested weekly and generators shall be kept serviced according to manufacture recommendation. In facilities without generators, individual units shall devise plans to keep ventilation operational, either through open windows and doors or portable generators or both.

5. **Pig Processing at Farrowing:** As pigs are farrowed, all of the following should be performed:
 - a. Dry each pig with a clean, dry towel or rag,
 - b. Clip needle teeth above the gum line, (taking care not to crush teeth) within the first 48 hours after birth.
 - c. Place the pig on a teat so that it may get colostrums milk. It is absolutely necessary that the pig gets this colostrum early in life since its ability to make the optimum use of the colostrums is lost 12 hours after birth.
 - d. Care shall be taken at this point to prevent fallbacks or starve-outs. Cross fostering may be necessary at this point as a last resort for pig survival. This must be done within the first 24 hours after farrowing.
6. **Pig Processing after 24 hours of Age:** Between 24 hours old and three days of age the following procedures should be completed on each baby pig:
 - a. Navel cord may be allowed to naturally dry and fall off. Cord may be pinched off about one inch from stomach, and then dip in 2% iodine solution if necessary. When clipping the cord, be sure to watch for and correct any excessive bleeding.
 - b. Dock tails approximately one (1") inch from base and the stump treated with iodine solution. Do not dock the tail too close to the tail-head since excessive bleeding may occur.
7. **Iron Injection:** Each pig must receive 1cc injectable iron at 7-10 days old. This shot may be done at castration to reduce handling of the pig. A second iron injection will only be given with the consent of the TDCJ Staff Veterinarian.
8. **Castrating:** The exact age of castration may be determined at the farm site as long as pigs are castrated between 7 and 10 days old.
9. **Ear Notching:** The potential breeding gilts (Ferguson and Ellis) will be ear-notched (must be done before any pigs are fostered) according to the pattern in the ear-notching chart. This chart is available from the Program Specialist III-Swine. It is the responsibility of the farrowing barn's Ag. Specialist III to maintain an accurate litter identification system.
10. **Pig Scour Medicine:** Given orally or IM at 1cc IM at first sign of scouring. Administer to entire litter and repeat daily as necessary.
11. **Weaning, 21 Days:** All pigs will be weaned when average age in the farrowing house is 21 days. Latitude is given for early weaning if it is necessary to empty a house for the next farrowing group. However, pigs should not be weaned much later due to loss of natural immunity acquired from the sow. If pigs have not received a second iron injection before weaning age, they will be given iron at weaning.

12. **Infectious Diseases:** If any animal appears to have an infectious disease, it should be isolated immediately and the TDCJ Veterinarian contacted at once.

D. GILT MANAGEMENT: An effective gilt management program will ensure that quality replacement gilts are provided to each farrowing operation. This section primarily refers to the production of replacement gilts at Ferguson and Ellis.

1. **Performance Testing:** All gilts being considered as replacements will be performance tested between five and five and a half months old. The gilts will be weighed and back fattened. This data will be combined with the dams PigChamp productivity value to predict a desirability index. Gilts not meeting requirements set forth by the Program Specialist III-Swine will automatically be culled and sent to slaughter.
2. **Physical Selection:** Gilts being considered for replacement will continually be culled based on physical consideration and the culling reason documented per gilt. In conjunction with the desirability index, the swine supervisor will make the final selection based on proper conformation, feet and leg structure, and reproductive factors.
3. **Feeding:** While replacement gilts (as finishers) are at the Ferguson and Ellis feeder slabs, the feeding program for finishers will be followed. However, once they are received onto a farrowing operation they should be fed 6-8 pounds daily of Wet Sow Ration, according to size and conditioned for future breeding. Care should be taken not to over feed the gilt and make her too fat for successful breeding. However, beginning two weeks prior to reaching breeding age gilts should be "flushed" by being fed 7-10 pounds of Wet Sow Ration daily.
4. **Shipping/Ordering Gilts:** The Program Specialist III-Swine will coordinate all shipments of replacement gilts. Farrowing barn supervisors in need of gilts should allow for at least one months lag time between receiving gilts and the gilt's reaching breeding age. At the request of ordering farm, gilts can be ear tagged on the producing farm. Gilts will also receive 10cc Penicillin before being shipped. The following information will be sent for each gilt shipped: Ear-Notch Number, Sire, Dam, Date of Birth, Breed Type, Adjusted Back Fat, Adjusted Days, and SPI. This information will also be recorded at receiving unit.
5. **Introducing to Breeding Herd:** When gilts are received at a farrowing operation they should be grouped and penned according to expected breeding age (7 months old) and conditioned as mentioned above. If not ear-tagged, the gilts should be tagged now or at time they are moved to breeding barn. Exposure to a cull sow within a minimum of 30 days is vital for acclimating the gilts to the herd. Watch for, and record signs of heat so the appropriate breeding time can be estimated as the gilt nears breeding age. As the gilt reaches breeding age, she should be worked (ear-tagged, wormed and vaccinated) and moved into the breeding barn.

IV. NURSERY MANAGEMENT: Upon weaning, all pigs will be moved into a nursery environment. The stress from weaning can be lessened through thoughtful management. TDCJ's nurseries on Beto, Eastham, Ellis, and Ferguson consist of both a hot and cold nursery. Coffield has only a hot nursery, however, the management methods outlined below can be applied.

A. **Hot Nursery:** The length of time a pig is kept in the Hot Nursery varies between farms due to space requirements. The Hot Nursery is the best environment for the young feeder pigs and should be kept here for as long as possible before being moved to the Cold Nursery.

1. **Receiving Pigs:** Receipt of pigs should be coordinated with farrowing barn personnel for number of pigs to be weaned. Pens and feeders should be clean and disinfected. Each week's weaning should be placed in its own nursery room and kept separated from the prior week's weaning. Check all pigs upon arrival for health condition and sorted into groups according to sex and size. Castrate any non-castrated pigs that are found.
2. **Penning:** As mentioned above, pigs will be sorted by sex and size and placed in pens accordingly. Keep each weaning group together. In nursery rooms, keep only one age group of pigs and distribute pigs evenly in pens to keep from overcrowding. Keep pigs in the same pens for the duration of the time in the nursery. Remove and isolate sick pigs if possible.
3. **Feeding:** Follow the guidelines set forth in the Feeding Program section. Be sure to keep feed fresh; do not allow feed to cake or sour. No more than four-hours of feed should be present at a time.
4. **Sanitation:** Refer to the Herd Health Management section. Remember that sanitation is important in keeping the pig in a healthy condition. Wet floors that won't drain cause bacteria development and increase odor problems. Under no circumstance should pigs be wet or damp. Where floors are slatted, in most cases, washing pens is not necessary until pigs are moved out. Scrap pens where floors are not slatted.
5. **Environment:** Pigs should be kept warm and dry at all times. For newly weaned pigs the temperature should be at least 88 degrees and slowly dropped, as pigs get older. Ventilation should be used to provide fresh air and remove stale air. Keep the temperature within the nursery from fluctuating drastically during the day and night. When using nursery crates, evenly distribute pigs to avoid overcrowding in the crate. Airflow through these pens is important to insure good air quality.
6. **Equipment & Facilities:** Routinely check all equipment to make sure it is in working condition. This includes feed bins, augers, waterers, pressure washers, heaters, thermostats, fans, curtains, etc. Remember that water pressure should be low at water nipples so as not to frighten pigs. **All nursery pens should have at least two water nipples in both hot and cold nurseries.** Never let water accumulate in curtains. Before cold weather sets in, make sure water lines, curtains, heaters, and other equipment are winterized and in good shape. Repair or replace equipment with original intent in mind.
7. **Shipping Pigs:** If pigs are being shipped to a Feeder Slab, they need to be weighed. Pigs moving to a Cold Nursery do not need to be weighed, but periodic weights should be taken to establish a growth reference. Always count pigs and note health condition. This is an ideal time to administer any necessary vaccinations.

B. **Cold Nursery:** Pigs are moved into the Cold Nursery from Hot Nursery as time and space dictates. Ideally the pigs should be left in the Hot Nursery for as long as

possible before being moved. Topics 1-6 mentioned under Hot Nursery apply, although lower temperatures can be tolerated to acclimatize the pig to temperatures on the feeder slab.

1. **Shipping Pigs:** All pigs leaving the Cold Nursery need to be weighed. This weight will be recorded and sent to the receiving Feeder Slab along with the average age of the pigs. Pigs should be shipped when they reach an average weight of 50-60 pounds. Always count pigs and note health condition. This is an ideal time to administer any necessary vaccinations. For any off-farm shipments, notify the Program Specialist III-Swine.

V. **FINISHER SLAB MANAGEMENT:** The primary focus of each finisher slab is to produce a healthy market hog while providing an outlet for disposing of recycled kitchen waste. Each finisher slab should be managed according to a modified "all-in: all-out" concept whereby groups of hogs are kept together by age group with minimal mixing between groups. Finisher slab condition is crucial to performance and efficiency of the finisher pigs. Floor surfaces must be maintained and kept dry to prevent feet and leg injuries.

A. **Receiving Pigs:**

1. Pigs will be counted and received onto the Finisher Slab as Feeder pigs then immediately reclassified to Finishers. Hog Shipments for handling any discrepancies in count.
2. Pigs will be counted and inspected off the truck to ensure all males are castrated. Any non-castrated males should be isolated, given a week to recuperate from the trucking and then castrated. The pig should not be reintroduced to the rest of pigs until it has had time to adequately heal.
3. Pigs should be sized and penned in equal groups according to sex and size immediately after unloading.
4. The average age and weight of pigs received should be documented and tracked through to slaughter. The age and weight will provide a basis for estimating when the group should be ready for the packing plant.

B. **Cold Weather Precautions:**

1. **Bedding:** Pigs in old style finisher slabs (Clemens, Retrieve, Ramsey, Jester, Hilltop, and Wynne) should be provided bedding for pigs less than 100 pounds if temperatures fall below 35 degrees Fahrenheit. Other units should provide bedding if the weather dictates. Hay makes good bedding. The bedding must be kept dry to provide a warm bedding area for the pigs. Care should be taken to not allow bedding to clog drains.
2. **Plumbing:** Precautions should be taken to keep water lines from freezing. Water nipples should be checked daily to ensure fresh water is available. **At least two water nipples should be in every pen of feeders or finishers.**

C. **Hot Weather Precautions:**

1. **Heat Stress:** Hogs are susceptible to overheating in hot temperatures. To reduce the risk of this occurrence, hogs should only be moved in the morning hours. The best way to monitor heat stress is to closely observe pigs when temperatures reach 90+ degrees. Labored breathing is a sign of heat stress.

2. **Foggers:** Foggers should be used to keep hogs cool with a water mist. The foggers should be turned on when temperatures reach over 80 degrees Fahrenheit. Ideally, the foggers should be on a thermostat/timer system with the water flow cutting on and off intermittently. Foggers should not be left running at night when temperatures drop below 80 degrees. Currently, we have foggers available that use only one (1) gallon per minute.
- D. Feeding Program:** Refer to the Feeding Program section for proper feed rations and feed management techniques.
- E. Count:** An accurate count of animals on the Feeder Slab must be maintained. All receipts and shipments of pigs should be carefully counted. An updated count per pen should be maintained along with the age of the pigs. The age of all pigs shipped should be documented.
- F. Sanitation:** A good sanitation program is key to preserving herd health and pest control.
1. Pens should be scrapped daily and only washed when necessary. Scrapers such as squeegees should be used to push manure to drains before washing to conserve water. Wash water should not be allowed into feeders. Efforts should be made to keep pens as dry as possible, especially during cold weather. When possible, leave half of the pen dry to eliminate feet problems. Water hoses should not be left running unattended.
 2. Slop lanes need to be thoroughly cleaned each day. All non-edible material removed from the slop should be disposed of properly.
 3. Pens and feed troughs should be cleaned thoroughly and disinfected between each group of hogs. If scheduling permits, pens should sit idle for several days before another group is moved in.
 4. Trash and other debris should be cleaned up daily. Any area that may attract flies should be cleaned up. Any surplus material stored near Feeder Slab should be arranged neatly so as to not be an eyesore.
- G. Other Finisher Slab Management Factors:** Miscellaneous factors which should be considered during daily operations are:
1. **Use All-In:All-Out Concept** to keep groups together with minimal sorting, always wash and disinfect pens before moving pigs in.
 2. **Isolate sick animals** from the general population by using a "sick pen" and notify the Staff Veterinarian if an infectious disease may be present.
 3. **Turn lights off** in empty buildings.
 4. **Use Scales** to help estimate size of animals to project packing plant shipments.
 5. **Minimize Stress** via proper actions and handling of hogs and allowing 8 square feet of space for each hog over 100 pounds.
 6. **Feeder slab surfaces** shall be maintained to prevent leg and feet sores. The combination of rough surfaces and wet floors is our #1 problem on feeder slabs.
 7. **Sticks, water hoses or other makeshift bats shall not be used** to handle or move animals. In almost all situations, animals can be driven by simply the touch of the hand in the middle of the back and patience.

8. No hogs shall remain on finishing slabs that are over 210 days old. Ship to packing plant regardless of weights.

VI. HERD HEALTH MANAGEMENT: The success of any swine operation depends on the herd health status. High herd health can be maintained through scheduled vaccinations and treatments, proper drug administration and bio-security precautions.

A. VACCINES & MEDICINES: Always read label instructions before administering any drug. Do not exceed the labeling dosage. All vaccinations and treatments must be recorded to ensure that withdrawal times are met before animals are sent to slaughter. The following will provide a schedule for standard vaccinations and treatments and provide recommendations for the more common drugs used.

1. **Vaccinations & Standard Treatments:** The following outlines scheduled treatments, dosage and withdrawal periods. The below chart is for reference only, always check labels on vaccines. See footnotes.

Product	Animal	Dosage	Needle	Age	Withdrawal
Iron	Baby Pig	1cc IM	18g ½"	7-10days	N/A
Erysipelas	Feeder Pig	2cc IM	18g ¾"	5-7 wks	21 days
APP (a)	Feeder Pig	2cc IM	18g ¾"	6-10 wks.	30 days
APP	Finisher (b)	2cc IM	18g 1"	10-14 wks.	30 days
	Finisher (c)	2cc IM	18g 1"	14-18 wks.	30 days
APP	Sow	2cc IM	16g 1"	3 wks. to due	30 days
APP	Boar	2cc IM	16g 1"	2 times/year	30 days
Repro (d)	Gilt	2-5cc IM	18g 1"	see (e) below	21 days
Repro (d)	Sow/Gilt	2-5cc IM	16g 1"	3 wks. to due	21 days
Repro (d)	Boar	2-5cc IM	16g 1"	2 times/year	21 days
Ivomec	Sow/Gilt	1cc/75 lbs.SC	16g 1"	3 wks. to due	21 days
Ivomec	Boar	1cc/75 lbs.SC	16g 1"	2 times/year	21 days

***ALWAYS FOLLOW LABEL INSTRUCTION ON VACCINES FOR VACCINATION PROGRAMS.**

PURCHASED GILTS:

Within 7 days of arrival at quarantine: APP, Strep, PRRS, Repro bacterin, Ivermec.
28 days later: APP, Strep, PRRS, Repro bacterin, Ivermec.

RAISED GILTS:

4 months of age: APP, Strep, PRRS, Repro bacterin, Ivermec.
28 days later: APP, Strep, PRRS, Repro bacterin, Ivermec.
21 days prior to farrowing barn: APP, Strep, PRRS, Repro bacterin, Ivermec.

SOWS:

3 weeks prior to farrowing barn: APP, Strep, PRRS, Repro bacterin, Ivermec.

BOARS:

2x a year, six months between shots: APP, Strep, PRRS, Repro bacterin, Ivermec.
Recommend Tusk removal at same time

BABY PIGS:

At weaning when moving to nursery: Strep.
3 weeks later: Strep.
35 to 50 days old: Erysipelas.
45 to 65 days old: APP.
21 to 28 days after 1st shot: APP.
21 to 28 days after 2nd shot: APP.

FEEDERS/ FINISHERS: SEE HEALTH HERD CHART ON PREVIOUS PAGE.

- a. APP (Actinobacillus Pleuropneumonia) is listed for TDCJ's autogenous vaccine only. For commercial APP, follow labeling instructions. The initial APP vaccination should be given one week prior to pigs leaving the nursery.
- b. Only given on farms specified by Staff Veterinarian or Program Specialist III-Swine; currently Beto, Coffield, Ferguson, Eastham, Ellis, Pack, Ramsey, and Wynne. This second vaccination must be within 3 to 4 weeks from the first vaccination.
- c. The third APP vaccination is only at Beto and Coffield unless otherwise approved by the Staff Veterinarian or Program Specialist III-Swine. This vaccination must be within 3 to 4 weeks after second vaccination.
- d. Depending on vaccine purchases, the Repro vaccine may be either Breed Sow 6, FarrowSure B, or ParvoShield. Always check the label.
- e. Gilts will receive initial Repro vaccination as they are shipped to the farrowing operation. Once received by the farrowing operation, they should be given a booster shot 3 weeks after the initial vaccination and prior to breeding.

NOTE: Only upon prior written approval from the Staff Veterinarian or Program Specialist III-Swine can the above schedules be deviated from.

2. Miscellaneous Treatments

- a. **Oxytocin:** For use in assisting sows in late delivery and in helping milk to release. Caution should be exercised in using oxytocin if there is a delay between pigs being born, or if an overdue farrowing has occurred. Always manually check the birth canal to make sure a pig is not stuck and wait at least twenty to thirty minutes after last pig was born (and no afterbirth discharge) before administering oxytocin. Proper dosage is 1-2cc subcutaneous or intramuscular.
- b. **Dexamethasone:** Must be approved by Staff Veterinarian before using. General treatment for lameness and structural problems, generally given in conjunction with penicillin. Do not give to any pregnant sow especially within three weeks before farrowing.

- c. **Lincocin:** Swine antibiotic for arthritis and pneumonia type problems. Dosage is 1cc IM for 3-7 days with a 48 hour withdrawal.
- d. **Naxcel:** Antibiotic for respiratory problems. Due to expense should be used very judiciously. Since there is no withdrawal, Naxcel would be the therapeutic of choice for animals ready to market.
- e. **Oxytet/LA-200:** Oxytetracycline antibiotic for bacterial infection. Dosage for LA-200 is 4.5cc per 100 pounds of body weight IM with a 28 day withdrawal.
- f. **Short-Acting Penicillin (Procaine G):** For general antibiotic use. Withdrawal times will vary depending on dosage and last date given. (Long Acting Penicillin will only be used with the consent of the Staff Veterinarian).

B. Injection Administration:

- 1. **Personnel:** Only trained personnel will administer injections.
 - a. **Employees:** The general policy is to have all injectables administered by a TDCJ-ID employee. Any employee who will be administering medicines/vaccines will be instructed and proficient in the following: 1) Injection site selection, 2) Dosage, and 3) Sanitation.
 - b. **Inmates:** Inmates will be used only as a last option. Thorough and specific training by an Agricultural employee must be given before any inmate will be used to administer medicine/vaccine injections.
- 2. **Injection Route, Site & Administration:** The injection route and site should be determined from the labeling instructions included with the injectable. Use the intramuscular route only when the subcutaneous route is not an option.
 - a. **Subcutaneous:** The route of choice because it does not damage any part of the edible muscle meat and provides ease of treatment if an abscess occurs. Needle size, animal size, and administration technique, are important in subcutaneous injections.
 - (1) **Needle Size:** The proper use of clean, sharp, and appropriate sized needles is important. Needles should be:
 - (a) 18-20 gauge (16 gauge for Angle Technique), and
 - (b) 1 inch long
 - (2) **Animal Size:**
 - (a) **Adult or Large Animals:** Must be given below the skin in the neck area in front of the shoulder and mid way down from the top of the neck just below and behind the ear.
 - (b) **Small and/or Baby Pigs:** Given below the skin in the Axillary space or Inguinal region.
 - (3) **Administration Technique:**
 - (a) **Tent Technique:** With this technique, the animal's skin is placed between the thumb and fingers and is pulled away from the body creating a small "tent" of skin. The needle is inserted into the base of this tent, taking care not to push the needle through both tent edges. Care must also be taken to prevent sticking the operator with the needle.

- (b) **Angle Technique:** With a little experience, the needle can be directed at an angle of 45 degrees into and through the skin to reach the subcutaneous space.
 - (4) **Caution:** When administering any injectable subcutaneously, take care to ensure that all of the injectable material is within the subcutaneous tissue before removing the needle. Failure to do so will cause some of the injectable to be left in the skin tissue. This can cause a localized reaction in the skin which can turn into an abscess.
 - b. **Intramuscular:** The primary concern with products defined for intramuscular location is that they require a good blood supply for their absorption into the body's system. It is critical that intramuscular injections be placed deep into the muscle so the absorption can occur efficiently.
 - (1) **Needles:** 1 inch or 1.5 inches for large animals and 18-20 gauge. Needles should be kept clean and sharp at all times.
 - (2) **Proper Site & Administration:**
 - (a) Must be given directly in the neck muscle are in front of the shoulder and mid way down from the top of the neck just below and behind the ear.
 - (b) After sticking the animal, the operator should pull back on the syringe plunger before making the injection to be sure that the needle is not located in a blood vessel.
 - (3) **Caution #1:** Never place too much injectable in one site (no more than 5-10cc per site in adults or 3-5cc in small animals). Greater amounts than allowed should be divided between multiple neck sites that are several inches apart to keep the injectable from overlapping. This will provide for better absorption of the medicine/vaccine.
 - (4) **Caution #2:** Take care to assure that all of the injectable material is within the muscle tissue before removing the needle. Failure to do so will cause some of the injectable to be left in the subcutaneous tissue or skin and may result in a localized reaction or abscess.
- 3. **Sanitation for Injections:** Abscess following injections is the result of introducing infectious agents at the time of injection. The abscesses are detrimental to the animal's health and economic value. This makes sanitation essential. Sanitation of equipment can be best maintained using the following procedures:
 - a. **Employee/Inmate (Operator) Cleanliness:** The operator must wash hands thoroughly before administering any injection. He/she will be provided with disinfectant solution (Nolvasan or Virozan) and clean towel/rags to dry hands with. This will allow the operator to keep his/her hands clean and dry at the time of the injection and while handling the medication/vaccine.
 - b. **Injection Site Preparation:** The injection site should be free of any manure or mud and wiped clean if the animal is excessively dirty. Washing the

animals during routine pen cleaning is an effective way of preparing the animal for an injection.

- c. **Needles and Syringes:** Keeping the needles clean and sharp requires constant attention while administering medicines/vaccines. Do not hesitate to replace needles as often as needed to insure safe inoculations and treatments.

- (1). No chemical disinfectants of any kind are to be used on any part of the vaccinating equipment as these agents can inactivate the vaccines. Automatic syringes will be cleaned with betadine solution after use. Must be completely disassembled, rinsed, and allowed to dry after cleaning.

- d. **Medicine/Vaccine Bottles:** Keep all bottles clean. Be sure that needles are clean before inserting into any bottle and that hands are clean and dry when handling the bottles. This will reduce the likelihood of contaminating the material within the bottles. Always read and adhere to labeling instructions. Always properly store bottles at recommended temperature.

C. HEALTH MONITORING: All supervisors must keep an accurate record of herd health. This can be accomplished by monitoring mortality rates, animal condition, feed consumption, performance and weight gain. The Staff Veterinarian and Program Specialist III-Swine must be notified when health related problems occur out of the ordinary or begin to reach unacceptable levels.

1. **Farrowing Operations:** Mortality rates on all animals must be kept along with performance factors such as animal condition, abortions, stillborns, weak litters, sickness, conception, and farrowing rates.
2. **Nursery Operations:** The acceptable level for mortality rates is less than 4% in the nursery. Any time the death rate per group of pigs exceeds 4-6%, the Program Specialist III and the Staff Veterinarian must be notified. Be prepared to explain all details of the problem to the veterinarian including symptoms, total head affected, death loss, treatments given and response, and all other pertinent information.
3. **Finisher Slabs:** The acceptable level for mortality rates is less than 3% on the finisher slabs. Any time the death rate exceeds 4% per group of pigs, the Program Specialist III and the Staff Veterinarian must be notified. Be prepared to explain all details of the problem to the veterinarian including symptoms, total head affected, death loss, treatments given and response, and all other pertinent information.

D. BIO-SECURITY GUIDELINES: A clean and sanitary environment is essential in maintaining high herd health standards. Precautions should be taken to eliminate TDCJ's swine herd's exposure to outside diseases that may be introduced by employees, visitors, deliverymen, equipment, and wildlife (birds, animals, and rodents). It is the responsibility of the Unit personnel to maintain a properly functional pest/rodent control program. This program will complement the Biosecurity of all Enterprises. All fly controls and rodent controls must be coordinated through the Agency's Regional Pest Control Representative. Agency

Regional Pest Control Representatives are also available for consultation on any pest concerns. Notification of any treatments must also be made with the Enterprise's Program Specialist-III.

1. **Sanitation:** The combined use of disinfectants and water provide the basis of the sanitation program.
 - a. **Disinfectants and Use:** Always follow labeling instructions when mixing and handling disinfectants. As with all chemicals, caution should be exercised and proper handling of equipment utilized.
 - (1) **DC&R:** For footbaths, general facility cleaning, and washing sows. DC&R should be mixed at ½ strength when washing sows.
 - (2) **Prepodyne:** Surgical scrub for surgical sites and employee hands and arms; always use before entering a sow to check for pigs.
 - (3) **Tektrol or Environ 1 Stroke:** To disinfect empty pens.
 - (4) **Virosan/Nolvasan:** Used to clean veterinary equipment.
 - b. **Pens and Buildings** will be cleaned and disinfected when emptied and before the next group of animals is moved in. Pens should be washed with water, dried, and then sprayed with disinfectant. Disinfectant should not be applied to wet areas as further dilution will occur, reducing the disinfectant's effectiveness. Daily cleaning of pens should be done to keep animals clean; however, care should be taken to keep your pigs dry during cleaning. Wash water should not be allowed to stand in breeding and gestation pens.
 - c. ***Foot Wear:** A primary cause of spreading disease can be from manure and other contaminants picked up on shoes and tracked onto the farm or between farm operations and hog barns. All swine employees must practice discretion in ensuring that only clean footwear is worn at the swine facilities. Special care should be taken during the show-pig times of the year and for employees that have hogs at home.
 - (1) ***Foot Baths:** Footbaths with disinfectant will be strategically placed at all entrances to farrowing and nursery operations. The footbaths should also be placed throughout the farrowing operations, especially between farrowing, breeding, and nursery barns. All TDCJ employees (agriculture, security, maintenance), inmates, and visitors must use footbath every time they enter or exit barn and farm. The disinfectant should be kept fresh and checked daily.
 - (2) ***Disposable Boots:** Disposable plastic boots will be issued to farrowing and nursery operations and should be provided to any visitor or non-swine personnel. Any swine supervisor when visiting another farm should also wear the boots.
2. **Pest Control:** Precautions should be taken to eliminate the presence of stray animals including feral hogs, cats, birds, rodents, and insects. All are notorious carriers of diseases that can be spread to swine and should be removed or destroyed. It is the responsibility of the Unit personnel to maintain a properly

functional pest/rodent control program. This program will complement the Biosecurity of all Enterprises. All fly controls and rodent controls must be coordinated through the Agency's Regional Pest Control Representative. Agency Regional Pest Control Representatives are also available for consultation on any pest concerns. Notification of any treatments must also be made with the Enterprise's Program Specialist-III.

- a. **Feral Swine:** Wild hogs are primary carriers of pseudorabies and brucellosis. Double fencing of farrowing operations will be used to eliminate animal-to-animal contact. Eradication efforts should be taken upon sighting of feral hogs around TDCJ swine operations. Any time a feral hog is killed, spilled blood should be cleaned with disinfectant and a blood sample submitted to TAMU Diagnostic Laboratory for pseudorabies and brucellosis screening. No employee should ever return to swine operations after coming in contact with a wild pig until clothes and shoes are thoroughly cleaned. The Program Specialist III-Swine and Staff Veterinarian should be notified upon contact with feral hogs.
 - b. **Others:** An effective rodent and insect (flies, ants, roaches) control will be maintained through sanitation, fly/rat bait, powder or spray. Where practical, buildings should be sealed and doors shut or screened to keep birds, rodents, and cats out.
 - c. Currently, Staff veterinarians prior to shipment to the Michael Packing Plant will test all cull sows for Brucellosis and Psuedorabies. Ship only after negative test results have been verified.
3. **All-In, All-Out Procedures:** By adhering to the principles of All-In, All-Out, the transmission of bacteria and viruses can be minimized. Each group of animals, whether it is a farrowing group, weaned pig group, or finishers should be given space and time between prior and following groups. Traffic should be minimized from going between groups. Where possible, groups should be left in the same pens for as long as practical, especially on the feeder slabs. No mixing of ages should ever occur in the nurseries

VI. HOG SHIPMENTS: the Program Specialist II or III-Swine will coordinate all inter-farm hog shipments and transportation times and dates. All on-farm hog movements may be done at the discretion of the farm employees. Make sure farm staff is notified to come in early to load. Do not make truck drivers wait any longer than necessary to load.

A. Michael Packing Plant and Gilts: Shipments of Finishers and cull sows for slaughter and Gilts should meet the following criteria:

1. **Sorting Hogs:** Finishers and sows for slaughter and Gilts should be sorted prior to the shipment day. Finishers should be uniform in size and average 240 to 270 pounds on farm.
2. **Loading Trucks:** Trucks should be loaded promptly.
 - a. If there is a delay in loading from the scheduled time, notify the Program Specialist III-Swine and the Michael Packing Plant or receiving unit. If a truck arrives late and heat might jeopardize the welfare of the animals, use

discretion in canceling the load and immediately notify the Program Specialist II or III-Swine.

- b. Coordinate with the driver the loading pattern.
 - c. Securely fasten all partition gates.
 - d. Wet down all hogs immediately after loading during the warmer periods of the year.
3. **Count:** Always have the truck driver count the hogs onto the truck and make sure count agrees. The driver and livestock supervisor should also sign the livestock transfer after count agrees. If a difference in count arises between the farm and packing plant or receiving unit, immediately recount hogs on the farm and notify the Program Specialist III-Swine.
 4. **Research Specimens:** On occasion, the agency provides cull or surplus animals for research. All research agreements will be approved through the Program Specialist III-Swine. All research coordination will be approved through the Program Specialist III-Swine.

B. Feeder Pigs:

1. **Sorting Pigs:** All sorting of feeder pigs should be done prior to the shipment day. Pigs should average at least fifty pounds.
2. **Loading Trucks:** Trucks should be loaded promptly.
 - a. If there is a substantial delay in loading from the scheduled time, notify the Program Specialist III-Swine and the receiving unit. Always notify the receiving unit when the truck leaves the shipping unit.
 - b. Coordinate loading pattern with the driver.
 - c. Securely fasten all partition gates.
 - d. Temperature should be over 40 degrees Fahrenheit when shipping feeder pigs in the winter months.
3. **Count:** Always have the truck driver count the hogs onto the truck and make sure that the count agrees. The driver and livestock supervisor should also sign the livestock transfer after count agrees. If a difference in count arises between farm and receiving unit, both units should immediately recount hogs on-farm and notify the Program Specialist III-Swine if a difference still exists.

C. Outside Sales: The Program Specialist III-Swine must authorize all outside sales of any hogs. **ALL OUTSIDE SALES MUST BE ACCOMPANIED BY A PROPERLY APPROVED AND FILLED OUT BU63.** All aspects mentioned above apply to Outside Sales as well as the required paperwork and approval code.

D. Sanitation: Trucks present a major source of disease contamination. Precaution should be taken to not allow driver in direct contact with housing area of hogs. Any farm employee or inmate entering truck should wear protective clothing (rain slicker) while loading and have shoes thoroughly cleaned and disinfected before returning to his/her regular duties.

VIII. ENVIRONMENTAL MANAGEMENT: Proper management of environmental factors is essential to the overall performance of the swine operations. These factors include wastewater lagoons, dead animal disposal, and air quality. The lagoons provide a source for handling wastewater and provide a source for irrigation and recycled water. Management methods must comply with all TCEQ and TDCJ

Environmental Affairs regulations. Farm personnel must be familiar and comply with all wastewater and air quality permit regulations.

A. LAGOON MANAGEMENT:

1. **Water Levels:** Terminal lagoon must be equipped with a 25 year, 24 hour rainfall storage level marker unless a *significant* rainfall event occurred immediately prior to inspection. The water level must be pumped below the marker at the first opportunity the weather permits (TCEQ Permit VI-1.3.2). All drainage pipes between lagoons should be kept clear to allow for free-flowing action. Only wastewater should be allowed into the lagoons. All other items should be kept out of the lagoons including brush, limbs, lumber, and any trash. No action should be taken that will disturb the lining of the lagoons. Livestock will not be permitted to enter the lagoons (TCEQ Permit VI-1.5).
2. **Pumping:** In facilities with separate Terminal lagoons, the Terminal lagoons should be maintained at as low a level as possible in order to accommodate the storage period (TCEQ Permit VI-1.1.2) when pumping may not be practical. In single lagoon systems, do not pump below 75% of water capacity. Effluent water should neither be allowed to overflow a lagoon levee nor be discharged where it may enter a public water waterway (TCEQ Permit VI-2.2.5). An adequate and functional irrigation pump must always be on site (TCEQ Permit VI-1.1.3). The irrigation pump and plumbing system must be monitored constantly during de-watering by assigned inmates and employees.
3. **Sampling:** TCEQ requires periodic sampling of waste, wastewater, and soil. The collection of necessary samples has been service contracted; provide direction to the proper lagoons or waste disposal areas as needed by contract personnel. Annual soil samples should be taken in areas where application have occurred and where there will be application of waste/wastewater in the coming year. Samples from stationary irrigation fields should be taken from riser areas that have not been used within the previous five (5) days.
4. **Records:** Records for both stationary and mobile systems will be kept. Pumping records for stationary irrigation systems should be maintained and submitted to the Program Specialist III-Swine at the first of each month for computer processing. To comply with TCEQ Permit VI-2.6.1, records must also be retained on site to indicate the pumping, estimated weight and/or volume of waste/wastewater moved, area of disposal, estimated wetted acreage and annual yield of each harvested crop for a minimum of 5 years.
5. **Violations:** Any violation of the TCEQ water or air permits should be reported to Agriculture Headquarters immediately. Agriculture Headquarters will then notify TDCJ's Environmental Affairs office. Environmental Affairs is the agency's liaison with TCEQ and will advise on how to handle any situation.

B. ANIMAL DISPOSAL: Deceased animals should be disposed of immediately upon verification of death. STAFF SUPERVISORS WILL STRICTLY SUPERVISE ALL INCINERATOR USE. INCINERATOR MUST BE FENCED AND REMAIN LOCKED AT ALL TIMES. CONTENTS WILL BE INSPECTED EACH TIME INCINERATOR IS FIRED BY STAFF SUPERVISOR.

1. **Inspection:** All dead animals should be inspected by the supervisor to ensure that the animal is dead from natural causes and noted on the Livestock Condemnation Report.
 2. **Site:** All animals should be disposed in a designated burial site. No site should be located within 150' of water wells and carcasses must be covered with a minimum of 3' soil (TCEQ permit VI-4.1).
 3. **Rendering:** Facilities in close proximity may arrange for dead animals to be rendered at the Michael Packing Plant.
- C. AIR QUALITY:** Supervisors at facilities covered by TCEQ air quality permits should be familiar and comply with all aspects of the permit.

IX. RECORD KEEPING: Accurate records assist any manager in making sound production and economical decisions. The following records must be maintained in addition to any other unit-level specified records:

- A. All Operations:** All operations should keep a written up-to-date tally of the number of animals' on-farm and deaths, receipts, and shipments during the current month and yearly totals. This may be in the form of a chalkboard or paper, which ever suits the operation. All operations with wastewater lagoons must also keep and submit pumping records as mentioned under Section VIII.A. Lagoon Management.
- B. Monthly Reports:** The following written reports need to be mailed by the fifth of the month to the Program Specialist III-Swine:
 1. **Farrowing Report:** Summarizes each month's activity.
 2. **Nursery Report:** Summarizes the activity in both Hot & Cold Nurseries, if applicable. This report will also include the average age and weight of all pigs shipped from the nursery, regardless of destination.
 3. **Finisher Slab Report:** Summarizes each month's activity. This report will include the average age and weight of all finishers received and shipped from the finisher slab and number of slop wagons fed.
- C. PigChamp Records:** PigChamp is the computerized breeding herd database used at all farrowing operations. The data entry forms noted below does not necessarily need to be used if the information is still being captured and entered into PigChamp.

PigChamp Duties and Responsibilities

1. **Data Entry:** Basically every event taking place in the breeding herd should be recorded in Pig Champ. Swine supervisors should reference the Pig Champ data collection and data entry manuals. Listed below are the mandatory data entry requirements, however supervisors are encouraged to keep more exhaustive records. All records should be entered daily.
 - a. **Entering a Sow/Boar/Gilt into the herd:** A boar should be entered into the herd once it arrives on the farm. A gilt should be entered after she has reached breeding age and moved into the breeding barn. The following information should be recorded:
 - (1) Animal ID = tag number (Alt. ID = ear notch)
 - (2) Event Date
 - (3) Sex
 - (4) Parity
 - (5) Origin
 - (6) Sire/Dam

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- b. Sow Events: Each day numerous events occur for each sow. The following should be recorded:
- (7) Birth Date
 - (8) Genetics
 - (9) Back Fat
- (1) Mating
- (2) Pregnancy Exam
- (a) Sow ID
 - (b) Date
 - (c) Boar ID
- (3) Treatments
- (a) Sow ID
 - (b) Date
 - (c) Result
- (4) Farrow
- (a) Sow ID
 - (b) Date
 - (c) Treatments Administered
- (5) Piglet Deaths
- (a) Sow ID
 - (b) Date
 - (c) Number Pigs Born Alive
 - (d) Number Pigs Stillborn
 - (e) Number Mummies
 - (f) Total Litter Weight
 - (g) Litter ID (Ferguson and Eastham only)
 - (h) Induced
 - (i) Assisted
- (6) Fosters
- (a) Sow ID
 - (b) Date
 - (c) ID
- (7) Weaning
- (a) Sow ID
 - (b) Date
 - (c) Number of piglets weaned
 - (d) Total Litter Weight
- c. Boar Events
- (1) Treatments
 - (a) Date
 - (b) Treatments Administered
- d. Remove Event for Sow/Boar/Gilt
- (1) Animal ID
 - (a) Date
 - (b) Treatments Administered

- (2) Date
 - (3) Type
 - (4) Reason
- e. **Location Event for Sow/Boar/Gilt:** Each time an animal is moved, its new location should be recorded. This will help track an animal from breeding barn to gestation barn to farrowing house.
 - (1) Animal ID
 - (2) Barn
 - (3) Pen
- f. **Others:** There are numerous other events and notes the supervisor can utilize to help track the herd's performance. Take the time to learn about To Be Culled, General Comment, Flag, and other uses.
- g. **Never:** Never add a selection to any option that will update the Dictionary file. All options must be exactly the same for all TDCJ PigChamp users. If you feel it is necessary to add an option, notify the Program Specialist III-Swine for approval.
- 2. **PigChamp Reports:** make use of the following reports on a monthly basis:
 - a. **Data Integrity Report:** this report must be printed and sent with each month's diskette submitted to the Program Specialist III for Swine. Rectify any inconsistencies found on the report.
 - b. **Boar Performance and Boar Usage**
 - c. **Sow Performance List**
 - d. **Productivity Analysis**
 - e. **Performance Monitor Reports**
 - f. **Action Lists**
- 3. **Monthly Personal Computer PigChamp Responsibilities**
 - a. **Data Entry:** by the third day of each month all data from the previous month should already be entered.
 - b. **Backup Disks:** Two backup disks should be made (one needs to be kept on-farm and one sent to the Program Specialist III-Swine by the tenth of the month).
 - (1) **Data Integrity Report:** Remember to run the Data Integrity Report and correct any inconsistent information before backing up monthly data.
 - (2) **Check Diskettes:** Always check the diskette *before* and *after* backing up using the "Scandisk A" option from the Main Menu.
- 4. **Tape Backup**
 - a. **A full tape backup** of the hard drive should be made once a week.
 - b. **A partial tape backup** of the files that have changed or been added should be done daily.
- 5. **Personal Computer Operation**
 - a. **ADM-0103:** Be familiar with Agricultural Division Memorandum ADM-0103 "Agriculture Division Computer Systems Management" dated September 22, 1995. Follow all recommendations set forth in the ADM.
 - b. **Bookkeepers:** Inmate bookkeepers may be utilized in recording PigChamp information. However, all farrowing barn employees must equally be able to access and interpret data. The Agriculture Supervisor IV is responsible

for overseeing and training the inmate to make sure accurate and dependable data is input and extracted. Upon request, the Program Specialist III-Swine will provide assistance and training if necessary.

- c. **Never:** Never let an outside diskette be used without first running a *virus* scan. Never allow *any* software to be installed without the prior consent of the Program Specialist III-Swine.

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

STEPHEN McCOLLUM, and SANDRA §
 McCOLLUM, individually, and STEPHANIE §
 KINGREY, individually and as independent §
 administrator of the Estate of LARRY GENE §
 McCOLLUM, §

PLAINTIFFS

V.

CIVIL ACTION NO.

4:14-cv-3253

JURY DEMAND

BRAD LIVINGSTON, JEFF PRINGLE, §
RICHARD CLARK, KAREN TATE, §
SANDREA SANDERS, ROBERT EASON, the §
UNIVERSITY OF TEXAS MEDICAL §
BRANCH and the TEXAS DEPARTMENT OF §
CRIMINAL JUSTICE. §

DEFENDANTS

Plaintiffs' Consolidated Summary Judgment Response Appendix

EXHIBIT 282
addendum

Brad Livingston - 10/1/2015

1 research, nor have I had people tell me that.

2 Q. You have lived in Texas, though, for 25 years, right?

3 A. Roughly. Correct.

4 Q. Did you discuss the temperatures inside these units
5 with your directors that you rely on so much?

6 A. The -- the discussions we specifically had during
7 that time frame occurred in either late July or early August of
8 2011 after -- after there were several deaths within the system
9 that appeared to be heat-related deaths. And the reason why I
10 frame my response that way is that, as you know, the autopsies
11 are several weeks after -- after the death. In late -- again,
12 I don't recall the exact time frame -- but late July or early
13 August, I pulled together my deputy executive director, the
14 Correctional Institutions division director and let me
15 clarify -- I asked the deputy executive director to pull a team
16 together which included those individuals.

17 Q. That would be Mr. Collier?

18 A. Mr. Collier.

19 Q. And Mr. Thaler?

20 A. Mr. Collier is who I met and told them to have the
21 Correctional Institutional division, Health Services division,
22 and Facilities Division director and any others that he felt
23 would be important to first of all discuss and make sure that
24 we were taking all of the -- all of the steps that we needed to
25 take with -- with respect to what turns out to be the

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